LIFE SCIENCE AREAS OF NATURAL AND SCIENTIFIC INTEREST IN SITE DISTRICT 6-5

A Review and Assessment of Significant Natural Areas in Site District 6-5

September 1984

Ministry of
Natural
Resources
Ontario

OFER # 8408

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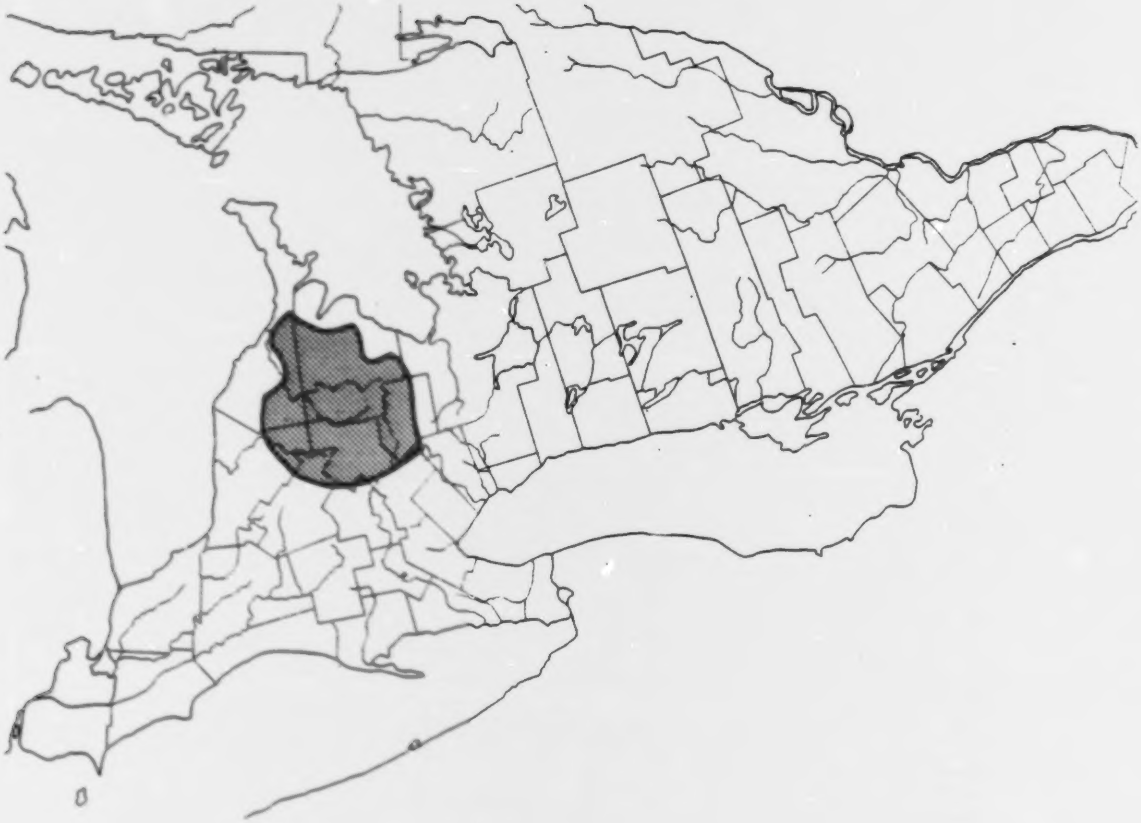

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The full citation for this report is:

Lindsay, K. M., 1984. Life Science Areas of Natural and Scientific Interest in Site District 6-5: A Review and Assessment of Significant Natural Areas. Parks and Recreational Areas Section, Central Region, Richmond Hill, Ontario and Southwestern Region, London, Ontario. viii + 115 pp. + folded map, illus.

For convenience, this report may be referred to as OFER # 8408. It is one of a number of Open File Ecological Reports comprised of reconnaissance surveys and inventories of ecological areas in Ontario.

Additional copies of this report are obtainable only from the Ontario Ministry of Natural Resources through the following locations: Central Region, 10760 Yonge Street, Richmond Hill, Ontario L4C 3C9, Telephone (416) 884-9202; Southwestern Region, at the nearest District Office of the Ontario Ministry of Natural Resources.

Reference copies of this report are available in the above offices, and the Natural Resources Library, 4th Floor Whitney Block, Room 4540, 99 Wellesley Street West, Toronto, Ontario M6A 1W3. Copies have been sent to university libraries in Southern Ontario.

ISBN 0-7743-9516-8

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PREFACE

In 1977 the Parks and Recreational Areas Program of Ontario Ministry of Natural Resources, with special funding approved by Management Board of Cabinet, initiated a provincial survey of natural areas in connection with park system planning. A parallel initiative focused on the identification of geological sites representative of Ontario's earth science diversity. The mandate for these surveys stems from the protection objective of the Ontario Provincial Parks Policy (1978), which is "to protect provincially significant elements of the natural and cultural landscapes of Ontario".

The overall objective of the natural areas survey is to identify a series of ecological areas that comprise the spectrum of natural landscapes, environments and biotic communities in Ontario. This objective issues from a Cabinet endorsed guideline of the 1978 parks policy which recognizes the role of provincial parks in protecting "a system of features representative of Ontario's life science history and diversity". With this aim, technical guidelines help to direct the selection, documentation and evaluation of natural areas throughout the site regions and site districts of the province.

Between 1980 and 1982, evaluations of remnant natural areas were undertaken in the site districts within the Central and Southwestern Regions of the Ministry. Through these assessments, the finest natural areas were chosen to complement natural features already represented within a series of Nature Reserves proposed through an earlier review of the provincial parks and park reserves (Lindsay and Hanna, 1980). In addition, natural areas identified through this survey complement the Candidate Nature Reserves already proposed for the Niagara Escarpment Planning Area (Parks Planning Branch, 1976).

The present report was issued as a draft in 1980 under the title "An Identification and Evaluation of Life Science Candidate Nature Reserves in Site District 6-5". Now in the final edition, it is one of a series of such reports which have been completed to date and are available as "Open File Ecological Reports". The findings of these reports have provided the basis for many of the "Recommended Provincial Parks" announced by the Minister in June 1983, and the "Areas of Natural and Scientific Interest" designated in the District Land Use Guidelines also released at that time.

Although evolution of the land use planning process since 1981 has produced new terminology incorporating natural areas, this nomenclature is not used in this report. Rather, natural areas are referred to as either Candidate Nature Reserves or as Significant Sites. This is distinct from the new terminology, as used in the District Land Use Guidelines (OMNR, 1983), which groups natural areas and geological sites as Areas of Natural and Scientific Interest (ANSI s).

According to the District Land Use Guidelines, ANSI s may vary in level of significance. The most significant of these, those referred to as Candidate Nature Reserves in this report, make the greatest contribution to the Ministry's protection objective and are listed in the District Land

Use Guidelines. ANSI s which contribute to a lesser degree to the provincial protection objective are referred to as Significant Sites in this report and are considered to be at least regionally significant. The policy statement for Areas of Natural and Scientific Interest is appended.

Site district evaluations in the Central and Southwestern Regions of the Ministry were carried out by three biologists -- K. M. Lindsay, R. Hanna and R. Klinkenberg. Lindsay coordinated and directed the work, and evaluated Site Districts 6-5, 6-7 and 7-2. Hanna examined Site Districts 6-2, 6-6, 6-8, 6-13, 7-4 and 7-6; Klinkenberg examined Site Districts 7-1 and 6-1. While all three biologists shared common objectives and collaborated in developing evaluation techniques, each undertook field work and evaluation using methods appropriate to their respective site districts.

Each site district report includes an analysis and discussion of the natural features and natural areas of the site district, a discussion of the methodology, recommendations for further work and possible methods of natural areas protection. Check-sheets for Candidate Nature Reserves are appended, as are brief descriptions of other natural areas in the site district.

The information collected during the site district assessments forms the foundation of a provincial natural areas data base. This data base is being updated as new information is obtained. It is an important component of the planning process at district, regional and provincial levels of the Ministry. Readers are invited to add to the data base, either by contributing to studies conducted by the Ministry, or through information contributed to other groups seeking to protect natural areas.

Although site district assessments were designed to identify those natural areas which contribute mainly to the protection objective of the Ministry, this information should prove useful to regional and local governments, conservation authorities and other organizations involved with the identification and protection of significant natural areas. Protection of natural areas may be achieved in several ways, including the purchase of sites by outside agencies. Where natural areas designated as ANSl s occur on public lands managed by the Ministry, it will ensure that the land uses and activities which occur provide for the protection of identified values. On private lands, the Ministry will, through cooperation with others, attempt to ensure that landowners are aware of the significant features on their properties and seek the owners' cooperation in protecting such features.

ACKNOWLEDGEMENTS

Many people contributed to the preparation of the site district reports. H. J. Featherston, H. Pronk, J. Griffin and G. Rodgers (Parks and Recreational Areas Section, Central Region, Ontario Ministry of Natural Resources) played a major role in the administration of this project, providing continual and much appreciated logistic and technical support. G. Murphy and E. Martelle (Parks and Recreational Areas Section, Southwestern Region) also contributed substantially to this project. Technical direction for the project came from an informal committee composed of the Parks Coordinators of both regions, H. J. Featherston, G. Murphy and E. Martelle; the Regional Park Planners, G. Rodgers, W. McNab and I. Seddon; and T. J. Beechey, (Life Science Coordinator, Parks and Recreational Areas Branch, Queen's Park). Discussions on technical matters with T. J. Beechey, W. McNab and G. Rodgers proved especially valuable.

Throughout the course of this project. K. Lindsay provided regular direction, encouragement and advice. P. Terpstra's assistance with background research, data analysis, map preparation, field work and report editing has been invaluable. L. Sajnovic supervised report typing with proficiency and looked after many other details.

The encouragement of J. L. Riley (Royal Ontario Museum) throughout the project is greatly appreciated. He also provided information on plant distributions and specific sites, ideas and company in the field during previous and supplemental visits to the district.

The draft Site District 6-5 report was reviewed by selected external experts familiar with the geographical area under study in Site District 6-5. Comments made by Dr. S. Hilts and Dr. A. Wellwood are appreciated and have been added to the data base for ANSI's at district and regional offices and the main office of the Ministry. These reviews generally confirmed the selection of ANSI's made by this site district study.

CONTENTS

PAGE NUMBER

PREFACE i

ACKNOWLEDGEMENTS iii

TABLE OF CONTENTS v

LIST OF MAPS AND TABLES vi

SUMMARY vii

1. INTRODUCTION 1

2. METHODOLOGY 11

3. CANDIDATE NATURE RESERVES 17

4. CONCLUSIONS 23

GLOSSARY 25

APPENDIX A: CANDIDATE NATURE RESERVE CHECK-SHEETS AND ENVIRONMENTAL DATA CARDS FOR SIGNIFICANT SITES 27

APPENDIX B: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE 95

APPENDIX C: SITES SELECTED FROM AN AIRPHOTO REVIEW TO REPRESENT UPLAND SITES ON THE DUNDALK TILL PLAIN 105

APPENDIX D: POLICY FOR AREAS OF NATURAL AND SCIENTIFIC INTEREST 109

BIBLIOGRAPHY 110

MAP REFERENCES 114

LIST OF MAPS AND TABLES

Page Number

Figure Number

1. Site Regions and Districts of Southern Ontario 2
2. Site District 6-5 Relative to Niagara Escarpment Planning Area 3
3. Location of Candidate Nature Reserves in Site District 6-5, west of the Niagara Escarpment Planning Area 18

Table Number

1. Summary of Natural Features Analysis and Candidate Nature Reserve Selection Procedure by Physiographic Region and Landform for Site District 6-5, west of the Niagara Escarpment Planning Area 5
2. Time Allocation for Natural Features Analysis and Candidate Nature Reserve Selection Procedure for Site District 6-5, west of the Niagara Escarpment Planning Area 12
3. Summary of the Major Features Represented in Candidate Nature Reserves in Site District 6-5, west of the Niagara Escarpment Planning Area 19

Map Number

1. Candidate Nature Reserves and Significant Sites in Site District 6-5, west of the Niagara Escarpment Planning Area

SUMMARY

Site District 6-5 is a large highland plateau lying west of the Niagara Escarpment, west of Orangeville and south of Owen Sound, and sloping gradually down towards the west and south. With elevations up to 523 m (1700 feet), this is the highest land in southern Ontario. The growing season is accordingly cooler and shorter than that of surrounding regions. On the south and east, the landscape is dominated by gently undulating till plains with frequent wetlands and occasional eskers. A complex pattern of rolling till moraine ridges, kame moraine hills, broad swampy spillway, till plains and drumlin fields cover the north and west portions. The headwaters of many major Ontario rivers rise within the region, including the Grand, Saugeen, Beaver and Nottawasaga.

An analysis of the physiographic regions, landforms and present natural landscape suggests that the following vegetation-landform features are representative of Site District 6-5: headwater wetlands, forested eskers, upland forests on till and kame moraine, kettle lakes and wetlands complexes, and upland till plain forests. The proportion of the site district remaining in a natural and relatively undisturbed state varies from approximately ten percent in the south to fifty percent in the northwest. Extensive clearing of the till plains for agricultural use has left a severe landscape, deficient in forested upland sites. To the north, rolling wooded hills with numerous streams, lakes and swamps blanket the morainic belt. The major centres of the district, Mount Forest, Durham, Hanover, and Walkerton, are agricultural service towns.

No provincial parks or park reserves are located within the study area, which is defined as Site District 6-5,west of the Niagara Escarpment Planning Area. The following fifteen candidate nature reserves offer the best representation of the major vegetation-landform features of the study area.

Headwater Wetlands and Forested Eskers	Luther Marsh (40P/16 460550) Hatherton Wetlands (41A/8 520000)
Upland Forest on Till Moraine and Kame Moraine	Robson Lakes (41A/7 205200) Kinghurst Forest (41A/7 060080) Traverston Creek Forests (41A/7 260010)
Wetlands and Kettle Lakes	Kinghurst West Lowland/Upland (41A/7 040060) Beaverdale Fen (41A/7 290180) Harrison Lake and Fen (41A/7 080080)
River Valley	Rocky Saugeen River (41A/7 170000)
Spillway Lowland	Lily Oaks Forests (41A/7 235195)
Upland Forest on Till Plain	Molesworth Woods (40P/14 990463)

River Valley	South Saugeen River (41A/2 090727)
Kettle Bog and Kame Moraine Upland Complex	Drew Bog and Swamp (40P/15 110685)
Forested Drumlin and Wetland Complex	Skipness Drumlins and Wetlands (41A/11 850355)
Forested Drumlin and Wetland Complex	McGill Lake (41A/7 140260)

Within the limitations of this overview study at a broad regional level, eight of these fifteen candidate nature reserves appear to be outstanding - Luther Marsh, Robson Lakes, Kinghurst Forest, Beaverdale Fen, Harrison Lake and Fen, Rocky Saugeen River, Drew Bog and Swamp and McGill Lake.

1. INTRODUCTION

Site District 6-5 is a large highland region in southern Ontario comprised of parts of Bruce, Grey, Dufferin, Wellington, Huron, Perth and Waterloo Counties (Figure 1). It lies west of Orangeville and south of Owen Sound. With elevations ranging from 246 m (800 feet) in the west to 523 m (1700 feet) in the east, this upland forms the highest land in southern Ontario. The area is a huge plateau sloping gradually from the Niagara Escarpment, which runs along the north and east, towards the lowlands on its south and west sides. The headwaters of many major rivers - the Grand, Maitland, Saugeen, Rocky Saugeen, Beaver, Bighead, Sydenham, Nottawasaga and Credit - rise within this highland and flow into Lakes Erie, Huron, Ontario and Georgian Bay. Because of its elevation, the core of the upland has the coolest and shortest growing season of any farming area in southern Ontario. The average length of the growing season is less than 189 days, a season comparable to that of the Algonquin Highlands (Putnam and Chapman, 1938).

The boundary of the Niagara Escarpment Planning Area overlaps parts of the eastern boundary of Site District 6-5 (Figure 2). Only that portion of Site District 6-5 lying west of the Niagara Escarpment Planning Area was included in this study. An identification and evaluation of candidate nature reserves within the Niagara Escarpment Planning Area was already available (Park Planning Branch, 1976).

Site District 6-5 is one of the fifteen site districts in Site Region 6. A site region is defined as an area of land within which the response of the vegetation to the features of the landform follows a consistent pattern (Hills, 1959). Site Region 6 is described as a gently undulating to rolling landscape with ice-laid materials deeply covering the bedrock over 80 percent of the area. Local plains of flat, lacustrine deposits and limestone plains shallowly overlain by drift are restricted to several locations. Normal mesic, normal dry and hot dry sites (as defined by Hills, 1959) are typically forested with sugar maple - beech - hemlock, sugar maple - oak - ash and oak - ash respectively. Hemlock, yellow birch, spruce and white cedar occur on wet sites. Each site region is subdivided into site districts based on landforms which set apart fairly large areas. Hills (1959) described the Mount Forest Site District (6-5) as "a moderately rolling upland area of high lime, stoney loam, gravel and sand derived from dolomitic (calcium and magnesium) limestone".

Maps of the physiography of southern Ontario (Chapman and Putnam, 1972) show till plains, till moraines, kame moraines and spillway/outwash deposits as the dominant landforms of Site District 6-5. Drumlin fields are concentrated in the northern and western portions. Eskers, muck, clayplain and sandplain occupy a more limited area. Ten of the minor physiographic regions outlined by Chapman and Putnam (1973) for southern Ontario lie wholly or partially within the boundaries of Site District 6-5 - the Dundalk Till Plain, Horseshoe Moraines, Teeswater Drumlin Field, Stratford Till Plain, Arran Drumlin Field, Bighead Valley, Saugeen Clay Plain, Hillsburg Sand Hills, Guelph Drumlin Field and Waterloo Hills.

About 70 percent of the site district is covered by the first three physiographic regions. The Dundalk Till Plain, in the southeast third of the site district, is a gently undulating till plain with frequent wetlands in poorly drained depressions. Eskers and small spillway valleys, aligned northwestward, cross the plain.

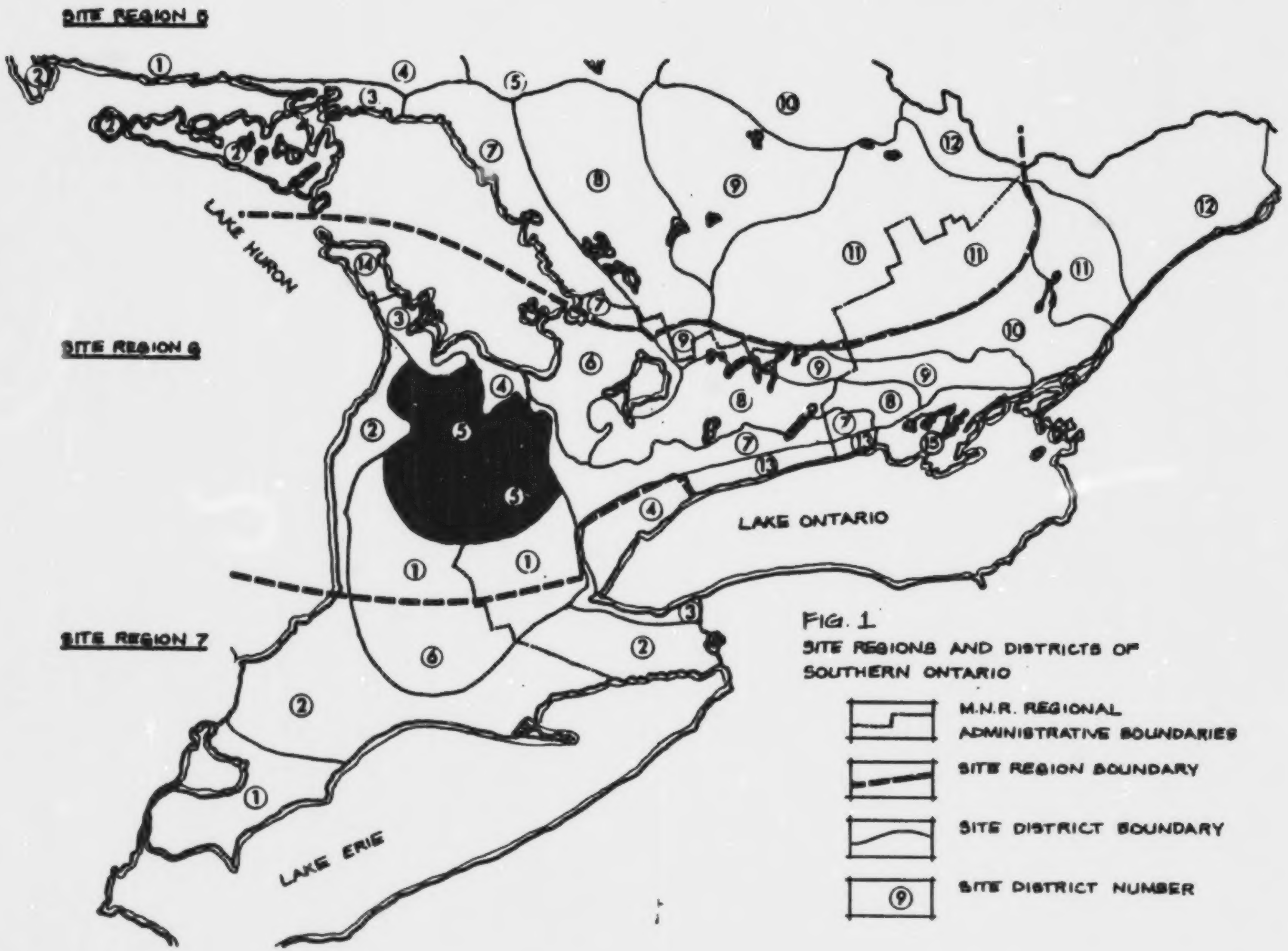
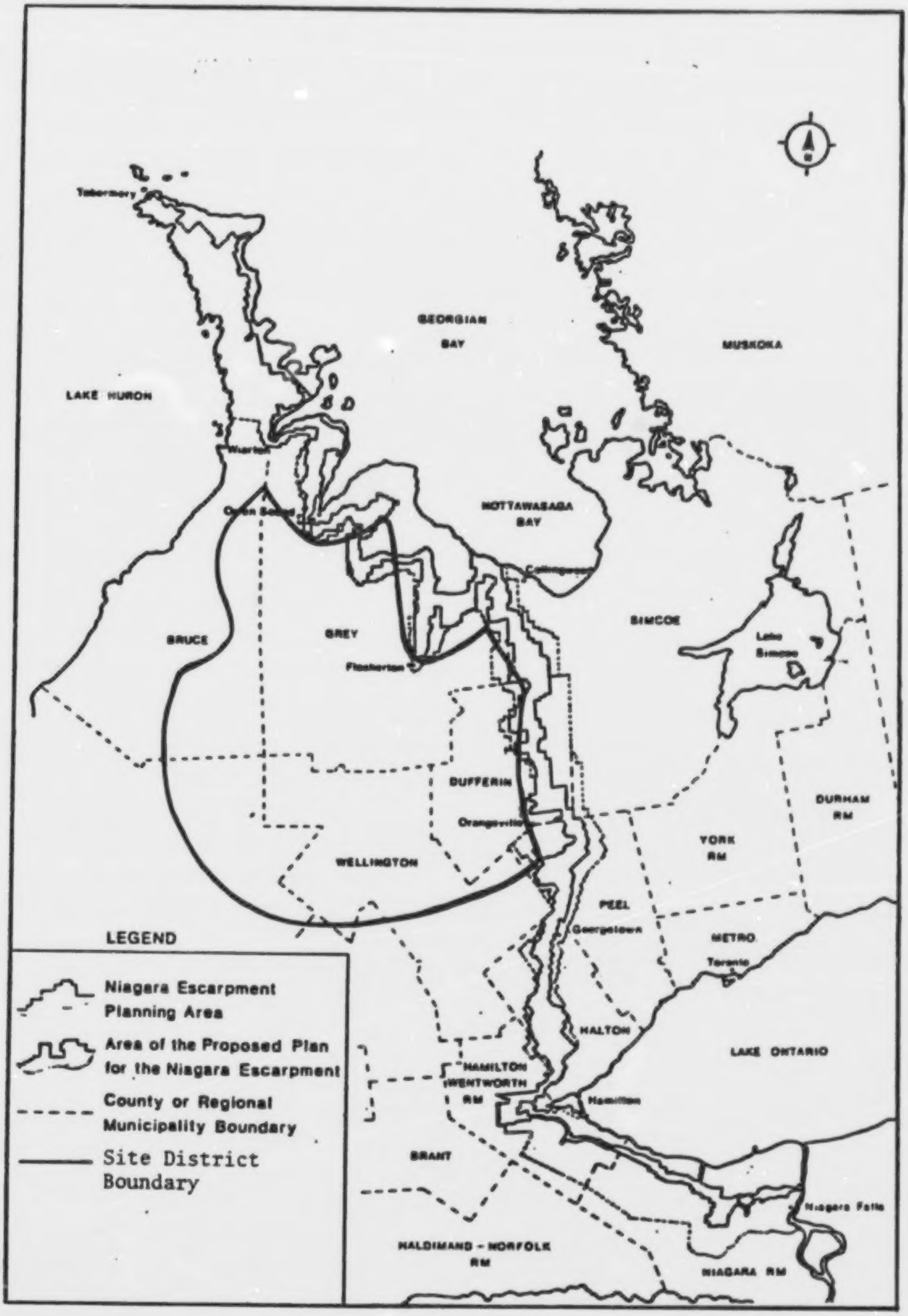


FIG. 1
SITE REGIONS AND DISTRICTS OF SOUTHERN ONTARIO

FIGURE 2. Site District 6-5 Relative to the Niagara Escarpment Planning Area



The Horseshoe Moraines region is dominated by irregular stoney knobs and ridges of till and kame moraine interspersed with a complex of spillways and outwash plains of sand and gravel, swampy valley floors, till plain and drumlinized areas. The toe of the region lies in the northern part of the site district. A narrow morainic belt also extends southeast along the brow of the escarpment and southwest along the west boundary of Site District 6-5.

Situated in the southwest corner of the site district, the Teeswater Drumlin Field is a till and outwash plain dotted with low oval drumlin hills of loamy till. Several kames, such as the moraines near Lakelet Lake and Pike Lake, interrupt the continuity of the drumlin field.

Two additional drumlin fields, the Arran Drumlin Field and the Bighead Valley physiographic regions, make up another ten percent of Site District 6-5.

Table 1 presents an analysis of the landscape of Site District 6-5 and its remaining natural features. The ten physiographic regions that lie within the site district are listed in order of importance. For each physiographic region, component landforms are given, based on Chapman and Putnam, 1972 and 1973. As well, the percentage and types of natural areas remaining is estimated, based on a review of the 1:50,000 topographic maps covering the site district.

For Site District 6-5 overall, an estimated ten to fifteen percent of the landscape remains in a natural condition, that is, in forest or wetland. Parts of the site district, notably the Horseshoe Moraines contain much more of the landscape in natural vegetation, up to fifty percent. Abundant natural areas - rolling wooded hills, broad swampy valleys, numerous small lakes, streams and rivers - characterize the Horseshoe Moraines. The loamy soils are frequently gravelly and have boulders; fertile soils for the growth of hardwood forests but too stoney for cultivation.

No provincial parks or park reserves are located in the study area, which consists of Site District 6-5,west of the Niagara Escarpment Planning Area[1]. The most common natural features left are headwater wetlands, forested eskers, upland forests on till and kame moraine, kettle lakes and wetlands, spillway lowlands, river valleys, forested drumlin and wetland complexes, and upland till plain forests.

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[1] Four park reserves with the Niagara Escarpment Planning Area lie wholly or partially within Site District 6-5. Candidate nature reserves have been proposed for three of these - Hoggs Falls, Lavender Falls and Boyne Valley (Lindsay and Hanna, 1980; Brownell, 1980).

TABLE 1. SUMMARY OF NATURAL FEATURES ANALYSIS AND CANDIDATE NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 6-5 WEST OF THE NIAGARA ESCARPMENT PLANNING AREA

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions Wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx. Area		
Dundalk Till Plain (small part extends into 6-1)	30	Till Plains (drumlinized) Peat and Muck Drumlins Spillways Eskers Kame Moraines	60 20 5 5 5 5	-10 to 15% left in forest and wetland in region as whole -the larger tracts (>100 ha) are wetlands in organic depressions -a number of forested eskers -headwaters of the Saugeen, Maitland, Grand and Nottawasaga Rivers rise here	-	-	-	-upland till plain sites -headwater wetland complexes -forested eskers	-Luther Marsh (40P/16 460550) -Hatherton Wetlands (41A/8 520000) *A few small sites with potential to represent upland till plain forests were identified from an air photo review (see Appendix C). Further field work and analysis is required before sites can be chosen to represent this feature.
Horseshoe Moraines (also in 7-2, 7-6 and 6-1)	25	A complex of Till Moraine Ridges	25	-considerable natural area remains on Horseshoe Moraines, from 10 to 15% in south, to 40 to 50% in the north	-	-	-	-upland forests on kame and till moraine -kettle lakes and wetlands -lowlands on spillway and outwash -river valleys and streams	-Robson Lakes (41A/7 205200) -Kinghurst Forest (41A/7 060080) -Traverston Creek Forest (41A/7 260010) -Kinghurst West Lowland/Upland (41A/7 260010)
		Kame Moraines	25	-large natural areas remain on the stony knobs and ridges of till and kame moraines					

TABLE 1. SUMMARY OF NATURAL FEATURES ANALYSIS AND CANDIDATE NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 6-5 WEST OF THE NIAGARA ESCARPMENT PLANNING AREA

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Physiographic Regions Wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx. Area		
Horseshoe Moraines cont'd	25	Spillways and Outwash Plains Drumlinized Till Plain Peat and Muck Eskers	25 20 <5 <5	-large lowlands and swamps occupy broad sand and gravel terraces in valleys -mainly farmed except for a few forests and drumlin slopes -numerous small lakes and streams in natural condition -headwaters of Rocky Saugeen, Sydenham, Bighead and Beaver rise here and traverse region; much of their valleys left in natural state					-Beaverdale Fen (41A/7 240180) -Harrison Lake and Fen (41A/7 080080) -Rocky Saugeen River (41A/7 170000) -Lily Oaks Forests (41A/7 235195)
Teeswater Drumlin Field (part in 6-1)	15	Till Plain Drumlins Kame Moraine Outwash and Spillways	40 5 25 25	-5 to 10% in natural area in whole region -only small woodlots left, narrow corridors along streams, and wetter sites -mainly cleared -a few larger upland and wetland complexes remain -a very few wetlands left on outwash between drumlins	-	-	-	-upland forests on till plain -wetland and forested upland complexes on kame moraine -forested eskers	-Molesworth Woods (40P/14 990463) -South Saugeen River (41A/2 090727) -Drew Bog and Swamp (40P/15 110685)

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Physiographic Regions Wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx.Area		
Teeswater Drumlin Field cont'd	15	Muck Esker	3 2	-small wetlands -one small site					
Stratford Till Plain (also in 6-1 and 7-6)	8	Till Plain (drumlinized Till Moraine)	95 5	-little remains -only small woodlots (ca. 20 ha) at back of farms -one tract of 200 ha+ south of Arthur	-	-	-	-upland till plain sites	-
Arran Drumlin Field (partly in 6-2 and 6-3)	8	Till Plain, Drumlins and Till Moraine	60	-3% -drumlins mostly cleared except for 100 ha east of Skipness; interdrumlin wetlands remain	-	-	-	-forested drumlin and interdrumlin wetland complexes	-Skipness Drumlins and Wetlands (41A/11 850355)
		Clayplain	20	-only small woodlots (20 ha) at back of farms; wetlands along creeks					
		Peat and Muck	15	-large wetlands on muck					
		Kame, Limestone Plain, Esker, Sandplain	5						

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Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx. Area		
Bighead Valley (also in 6-4; mostly within NEPA)	3	Drumlinized Till Plain	85	-20 to 25% -forested drumlins -wetlands in interdunal depressions, along streams and rivers -small lakes	-	-	-	-forested drumlin and wetland complexes	-McGill Lake (41A/7 140260)
		Limestone Plain	10	-15% -upland forests; wetlands					
		Peat and Muck	5	-covered by wetlands					
Saugeen Clay Plain (also in 6-2)	3	Clayplain	70	-1% -mainly farmed; small woodlots (50 ha) at backs of farms, one 300 ha swamp	-	-	-	-	-
		Sandplain	10	-10% -valley rim, slope and floodplain sites along Saugeen River					
		Till Moraine	10	-1% -mainly farmed					
		Drumlinized Till Plain	3	-1% -mainly farmed					
		Kame	2	-1% -mainly farmed					

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE
BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 6-5
WEST OF THE NIAGARA ESCARPMENT PLANNING AREA

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Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural Features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx.Area		
Hillsburg Sand Hills (small part extends into 6-1)	3	Kame Moraine	80	-1% -forested uplands are infrequent	-	-	-	-	-
		Outwash and Spillway	15	-10% -lowlands and wetlands along streams					
		Drumlinized Till Plain	5	-1% -lowlands between drumlinoidal hills					
Guelph Drumlin Field (also in 6-1)	3	Drumlinized Till Plain	60	-1% -small farm woodlots	-	-	-	-	-
		Spillways	40	-5% -narrow band following streams, wetlands, Elora Gorge					
Waterloo Hills (also in 6-1) small part extends into 7-6)	1	Kame Moraine	70	-1% -very small woodlots	-	-	-	-	-
		Spillways		-3% -lowlands along streams					

2. METHODOLOGY

This section outlines the four steps taken during an analysis of natural features found within Site District 6-5, and in the identification and evaluation of candidate nature reserves.

(i) Natural Features Analysis

The Protection Objective of the Ontario's Provincial Parks Policy (1978) is "to protect provincially significant elements of the natural and cultural landscape of Ontario". Life science resources are the living part of the natural landscape, for example, forests, marshes, plants, animals and their supporting environments. A preliminary life science assessment of provincial parks and park reserves in Central and Southwestern Regions, which identified significant life science features and proposed nature reserves, was completed in 1980 (Lindsay and Hanna, 1980). This life science evaluation of Site District 6-5 is one part of a study of all site districts in southern Ontario, initiated in April, 1980. The goal of both these assessments is to identify areas that best illustrate the natural features and landscapes of Ontario for inclusion in the park system as nature reserves or nature reserve zones in parks,and protection through other means such as Conservation Authorities and Municipal Official Plans.

Following the assessment of life science features represented in the provincial parks system, it was necessary to determine the natural features and landscapes that were not included in the parks system. Site districts, as defined by Hills (1959), served as an ecological framework for the analysis of the diversity of natural landscapes found in southern Ontario. Initially, an overview of the natural features characteristic of each site district was undertaken. This overview is summarized on Table 1.

The minor physiographic regions of Chapman and Putnam (1973) were used to segregate the site district into distinctive landform complexes. The proportion of the site district, covered by each physiographic region was estimated. For each physiographic region, physiography maps (Chapman and Putnam, 1972; 1:253,440) were used to tabulate landforms and derive their importance in terms of relative area covered. After scanning 1:50,000 topographic maps, the prominent natural features associated with various landform types were recorded, along with an estimate of the percentage of natural area remaining in a relatively undisturbed condition. The features represented within proposed nature reserves in provincial parks and park reserves located within the site district were also summarized on the chart. The final statement about features typical of the site district, but missing from the provincial parks system, was the end result of the natural features analysis.

The remainder of the study focussed on selecting and documenting the best examples of the dominant vegetation-landform features of the site district; in other words, choosing candidate nature reserves to represent the missing features identified through the natural features analysis. Sections (ii) to (iv) of the Methodology describe the steps followed. Table 2 tabulates the time spent on each step.

(ii) Review of Background Information

Background information on sites of biological significance had already been compiled into files and mapped on a set of topographic maps (1:50,000 scale).

TABLE 2. TIME ALLOCATION FOR NATURAL FEATURES ANALYSIS AND CANDIDATE NATURE RESERVE SELECTION PROCEDURE

STEP	DAYS
1. Natural Feature Analysis (overview of natural landscape of Site District 6-5 and identification of life science features missing from provincial parks system).	5
2. Review of Background Information (review of topographic maps, physiography maps, background information on documented sites of biological significance, air photos; and selection of sites for field checking).	9
3. Field Reconnaissance (by automobile and foot)	4
4. Site Evaluation (final review of air photos, maps and field notes, preparation of Environmental Data Cards and mapping of significant sites, selection of candidate nature reserves after evaluation and comparison of significant sites).	12

The background information available for the site district was summarized according to 1:50,000 N.T.S. map sheets and physiographic regions, by B. Mackay and P. Terpstra. These summaries are presented in Appendix B. The major sources of information for this site district were International Biological Program Check-sheets (IBP), Environmentally Sensitive Areas Reports (ESA), and a selection of sites based on survey of 1966 air photo coverage by Cuddy in 1976 (API). Information was available for about 160 sites of biological significance at varying levels of detail.

Topographic and physiographic maps were reviewed in conjunction with the information on documented sites of biological significance to select sites with representative life science features and nature reserve potential. For portions of the site district with little or no background information, sites were chosen strictly from maps. The 1966 air photos for these sites were examined and, after additional selection, a list of sites for field checking was prepared. In one case, map 41A/7, all of the air photos for the map sheet were quickly scanned to identify high quality, representative areas.

The following five criteria formed the basis for all phases of site selection and evaluation. Within each physiographic region and the site district as a whole, sites illustrating similar features were compared in terms of representation, diversity, condition, ecological considerations and special features.

(a) Representation - Representation of the remaining natural features of the site district was of primary importance. The dominant vegetation-landform features of the site district were given special emphasis.

(b) Diversity - Diversity was appraised in terms of the number and ranges of vegetation-landform features or habitats found within a site. The representation value of a site usually increases in proportion to the diversity of habitats contained within the site.

(c) Condition - The degree of past disturbance to the main feature(s) of the site was assessed. Logging, grazing, fire, drainage, flooding, mining, and recreational use were some of the impacts that were considered. Because all of southern Ontario has been effected by human disturbance to varying degrees, none of the sites selected are pristine.

(d) Ecological Consideration - Ecological considerations, such as size, shape, buffering from adjacent land use and watershed location, were also weighted. Generally, larger sites, which would be more likely to maintain stable and diverse natural communities, were chosen over smaller sites. However, for certain life science features only small remnant sites are left, especially in the extreme southern part of Ontario (Site Region 7). In such cases, sites that were close together or linked were ranked higher than widely spaced, small areas. Recent work on island biogeography (Diamond, 1975) suggests that species extinctions are less likely to occur in larger sites linked sites or closely spaced sites than in small, isolated sites. Headwater areas and watershed units, where some degree of control over inputs would be possible, were given special attention.

(e) Special Features - Allowance was also made for special features such as the presence of rare and endangered species, species of phytogeographical interest (significant species), nesting sites for colonial birds such as heronries, and concentrations of breeding and/or migratory waterfowl. The special features criterion was of secondary importance; it was applied only after representation, diversity, condition and ecological considerations had been assessed. Because detailed and complete biological data was lacking for most sites, caution was exercised in comparing the special features of sites with different levels of background data.

(iii) Field Reconnaissance

A total of four days, August 18, 20, 21 and 28, 1980, were spent field checking sites in Site District 6-5. The study team consisted of the author and field assistant, B. Mackay. The area was travelled by automobile and to a lesser extent by foot. Sixteen sites in the Dundalk Till Plain and Horseshoe Moraines physiographic regions were visited during the four days of fieldwork. An average of one to two hours was spent at each site, usually travelling a preselected route that traversed the main feature(s) and as many different habitats as possible. Brief notes on the general landscape, soils, site drainage, vegetation types, flora and fauna, condition and adjacent land use were made.

Due to time constraints, many sites were checked solely through airphoto interpretation and the available background information. Priority was assigned to field checking sites with nature reserve potential, but lacking background information. Less than one-third of the significant sites finally selected and only one-half of the candidate nature reserves were examined by the author in the field during August, 1980. On completion of report writing in December, one day (December 18, 1980) was devoted to field checking three of the seven candidate nature reserves that were not surveyed in August.

(iv) Site Evaluation

Following field reconnaissance, each site was reviewed, evaluated, and compared with other similar sites within its vegetation-landform type. For certain sites where land-use changes were suspected, the 1978 airphotos on file at the Ministry Air Photo Library, Queen's Park, Toronto, were consulted. A few poor quality or unrepresentative sites were deleted. The remainder were denoted significant sites (see Glossary). Environmental Data Cards were prepared for each significant site, outlining its location, vegetation-landform feature(s), general physical and biological characteristics, watershed, size and disturbances. Boundaries were mapped on topographic maps (1:50,000 scale).

Following further evaluation within vegetation-landform types, candidate nature reserves (see Glossary) were selected from the list of significant sites. Representation, diversity, condition and ecological considerations were weighed equally in the evaluation process, while special features were of secondary importance. Life Science Inventory Check-sheets were written for each candidate nature reserve, documenting its significant features, comparing it to other similar significant sites and providing the rationale for its selection. Further analysis of the candidate nature reserves led to the identification of the best quality sites representing the dominant vegetation-landform features; in other words, the most outstanding candidate nature reserves in the site district.

Appendix A consists of the check-sheets for candidate nature reserves and the Environmental Data Cards for significant sites, organized within physiographic regions by vegetation-landform feature types. Sites are listed in order of priority or significance within groupings of similar sites. Topographic maps (1:50,000 scale) showing the boundaries of significant sites and candidate nature reserves, and background data are on file at the Parks and Recreation Section, Ministry of Natural Resources, Central Region, Richmond Hill.

Note that ownership was generally not considered during the evaluation process. Exceptions were Indian Reserve and Department of National Defense lands which are outlined on the 1:50,000 topographic maps. Significant sites on these federally-controlled lands were not recommended as candidate nature reserves, even if they contained the best quality or only example of a major vegetation-landform feature in the site district. The reason for this exception was that these federal lands were considered to be outside of provincial control.

The preparation of this report involved the compilation of existing data on the natural areas of Site District 6-5. This data included available information on Environmentally Sensitive Areas in the site district, airphoto review, topographic map review, and some contact with individuals knowledgeable about the site district. A limited amount of time was devoted to field checking of sites in order to assess their current condition and the degree of representation offered by each.

The emphasis of this study was directed towards vegetation-landform features. Therefore, areas of high quality wildlife and fisheries habitat, and special sites such as concentrations of rare or endangered flora and fauna, are generally missing unless otherwise a component of a representative vegetation-landform feature.

3. CANDIDATE NATURE RESERVES

The natural features analysis of Site District 6-5, west of the Niagara Escarpment Planning Area, identified eight major vegetation-landform features remaining in a relatively natural state: headwater wetlands, forested eskers, upland forests on kame and till moraine, kettle lakes and wetlands, lowlands on spillways and outwash, river valleys, upland forests on till plain, forested drumlin and wetland complexes. Table 1 related these vegetation-landform features to the physiographic regions found in Site District 6-5. This study sought areas to illustrate the major natural features of six of the ten physiographic regions in the site district, which together cover about ninety percent of the total area. The Horseshoe Moraines region encompassed by far the greatest diversity of natural areas.

Following the review of background information, airphoto interpretation and limited field work, sixty sites in Site District 6-5 were chosen as significant sites. Significant sites are considered representative of the site district and of at least regional significance. After further evaluation, fifteen of these sixty significant sites were selected as candidate nature reserves because they were the best quality sites representing the major vegetation-landform features of Site District 6-5. Many of the fifteen candidate nature reserves display complexes of the major features of the site district. The location of the fifteen candidate nature reserves is shown on Figure 3.

Table 1 presents the candidate nature reserves grouped according to physiographic region. Table 3 summarizes the range of features within each candidate nature reserve and compares the approximate sizes of candidate nature reserves. Note that for some areas, such as Luther Marsh, Hatherton Wetlands and Rocky Saugeen, only portions of the total area given are suggested as candidate nature reserves.

The listing of features in Table 3 shows that the fifteen candidate nature reserves selected provide representation of most of the major vegetation-landform features of Site District 6-5. Two significant wetland complexes, containing the main examples of marsh and wet meadow in the Horseshoe Moraines, were considered for inclusion as candidate nature reserves (Negro Lakes, 41A/7 120095, and McClean Lake, 41A/2 095980, respectively). In the final analysis they were not recommended as candidate nature reserves because these wetland vegetation types were uncommon in the region.

Eight of the fifteen candidate nature reserves were viewed as outstanding. Examples of all of the main natural features associated with the Dundalk Till Plain are found at Luther Marsh, although upland sites on till plain are very limited. This large and diverse headwater wetland includes the most extensive marsh and bog in the site district, a forested esker and very small upland forests on till plain.

Both Robson Lakes and Kinghurst Forest feature upland hardwood forests on steeply rolling till moraine along with a variety of kettle ponds and lowland forests. Further studies are needed to document and compare these two sites. Two large fens, one on till plain - the Beaverdale Fen, and one on till moraine - the Harrison Lake Fen, were also chosen for further comparison because of their diversity, excellent condition and extent. Wetlands such as fens and bogs are susceptible to water level changes so duplicate sites could be advisable.

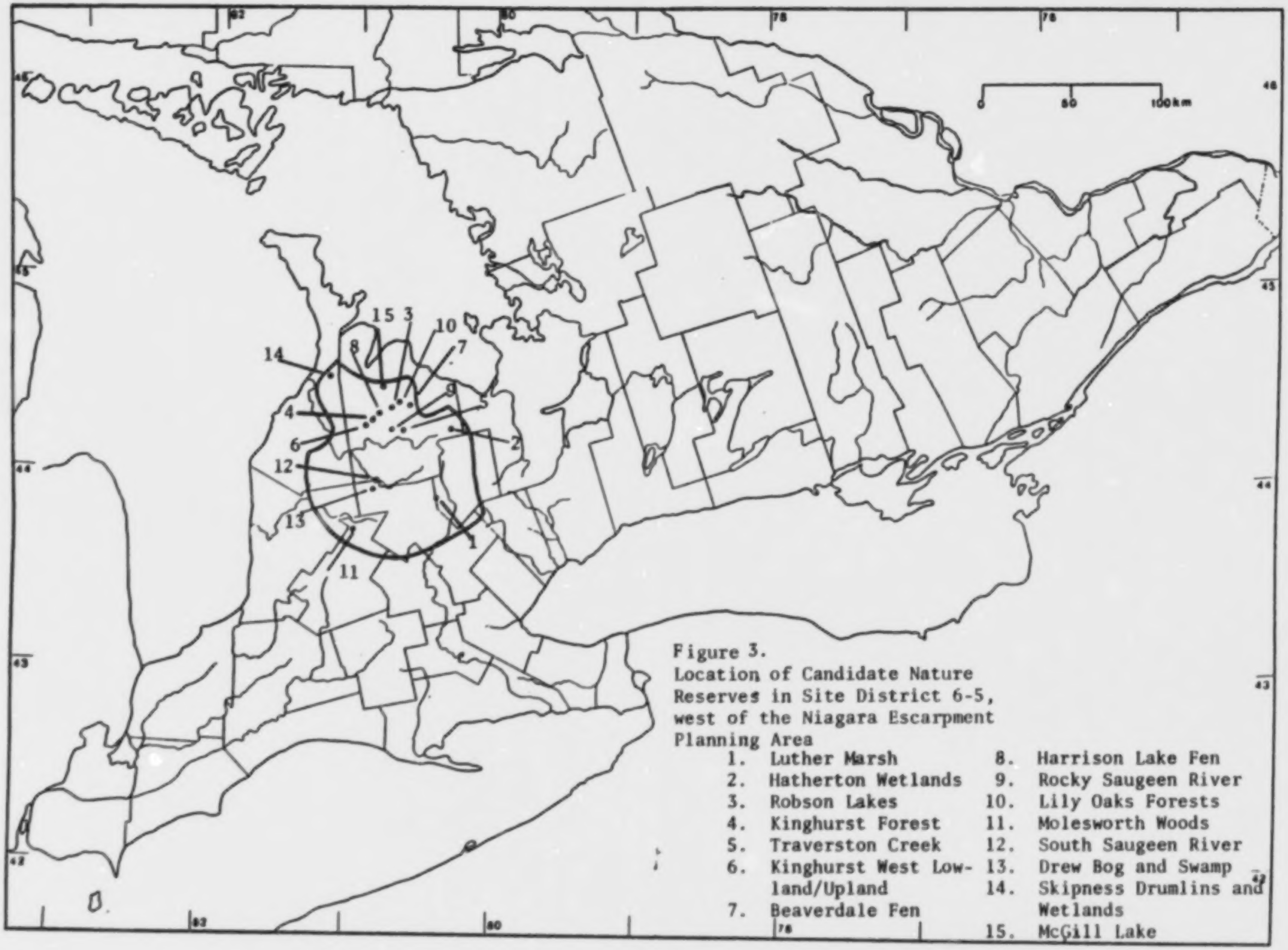

Figure 3.
Location of Candidate Nature Reserves in Site District 6-5, west of the Niagara Escarpment Planning Area

1. Luther Marsh
2. Hatherton Wetlands
3. Robson Lakes
4. Kinghurst Forest
5. Traverston Creek
6. Kinghurst West Lowland/Upland
7. Beaverdale Fen
8. Harrison Lake Fen
9. Rocky Saugeen River
10. Lily Oaks Forests
11. Molesworth Woods
12. South Saugeen River
13. Drew Bog and Swamp
14. Skipness Drumlins and Wetlands
15. McGill Lake

TABLE 3. SUMMARY OF THE MAJOR FEATURES REPRESENTED IN CANDIDATE NATURE RESERVES IN SITE DISTRICT 6-5, WEST OF THE NIAGARA ESCARPMENT PLANNING AREA

CANDIDATE NATURE RESERVE	MAJOR VEGETATION-LANDFORM FEATURES REPRESENTED	VERY APPROX. SIZE (ha.)
DUNDALK TILL PLAIN		
Luther Marsh (40P/16 460650)	- headwater wetland (the most extensive marsh and most extensive low shrub bog in site district, lowland/swamp forests), forested esker, small upland forests on drumlinized till plain	4,000
Hatherton Wetlands (41A/8 520000)	- headwater wetland (low shrub and treed bog, lowland forests), forested esker	2,400
HORSESHOE MORAINES		
Robson Lakes (41A/7 205200)	- upland forest on till moraine, some kettle wetlands (small ponds, bogs, lowland forests)	800
Kinghurst Forest (41A/7 060080)	- upland forest on till moraine, some kettle wetlands (small ponds, bogs, lowland forests)	400
Traverston Creek (41A/7 260010)	- upland forest on kame moraine	300
Kinghurst West Lowland/Upland (41A/7 040060)	- kettle lakes and wetlands (marsh and floating fen lake border, small ponds), upland forest on till moraine, lowland forest on spillway and outwash	550
Beaverdale Fen (41A/7 290180)	- wetland (an extensive fen on drumlinized till plain), partially forested drumlin slopes	160
Harrison Lake and Fen (41A/7 080080)	- kettle lake and wetland (an extensive fen on till moraine), some upland forest on till moraine	150
Rocky Saugeen (41A/7 170000)	- river valley (part limestone bedrock gorge)	850
Lily Oaks Forests (41A/7 235195)	- lowland forest on spillway, upland forest on till moraine, some upland forest on till plain	550

TABLE 3. SUMMARY OF THE MAJOR FEATURES REPRESENTED IN CANDIDATE NATURE RESERVES IN SITE DISTRICT 6-5, WEST OF THE NIAGARA ESCARPMENT PLANNING AREA

CANDIDATE NATURE RESERVE	MAJOR VEGETATION-LANDFORM FEATURES REPRESENTED	VERY APPROX. SIZE (ha.)
TEESWATER DRUMLIN FIELD		
Molesworth Woods (40P/14 090463)	- upland forest on till plain	55
South Saugeen River (41A/2 090727)	- river valley cut through kame moraine and till moraine	400
Drew Bog and Swamp (40P/15 110685)	- wetland (an extensive bog and forested upland complex on kame moraine	170
ARRAN DRUMLIN FIELD		
Skipness Drumlins and Wetlands (41A/11, 850355) (small part in Site District 6-2)	- forested drumlins and interdrumlin wetlands typical of Arran Drumlin Field (long, narrow, drumlins)	120
BIGHEAD VALLEY		
McGill Lake (41A/7 140260)	- forested drumlins and wetlands complex typical of Bighead Valley	500

A relatively natural and continuous river valley section, linked to upland forests along its rim, remains in the Rocky Saugeen River candidate nature reserve. Limestone bedrock is exposed along portions of its steep-walled valley. The most extensive and best quality kettle bog and kame moraine upland complex in the site district is Drew Bog and Swamp. McGill Lake is one of a very few natural areas in this site district composed of forested drumlins with wetlands lying in the depressions between drumlins.

These eight outstanding sites do not represent all of the major features of the site district; some types of kettle wetlands, spillway lowlands and upland sites on till plain are largely excluded. Because this study looked at representation, diversity and condition at an overview level, further fieldwork,documentation and comparison is needed before a priorization of the fifteen candidate nature reserves is undertaken.

4. CONCLUSIONS

No provincial parks or park reserves are located within Site District 6-5, west of the Niagara Escarpment Planning Area. Fifteen candidate nature reserves are recommended to represent the major vegetation-landform features of the site district. Headwater wetlands and forested eskers are represented by Luther Marsh and Hatherton Wetlands. Robson Lakes, Kinghurst Forest and Traverston Creek are upland forest on till and kame moraines. The Kinghurst West Lowland/Upland, Beaverdale Fen and Harrison Lake Fen sites feature wetlands and kettle lakes. The Rocky Saugeen River candidate nature reserve is a section along a major river valley. Lily Oaks Forest contains a spillway lowland and till moraine upland. Other candidate nature reserves illustrate upland forest on till plain (Molesworth Woods), a river valley cut through kame (South Saugeen River), and a kettle bog with kame moraine upland (Drew Bog and Swamp). Two forested drumlin and wetland complexes were also chosen, McGill Lake and Skipness Drumlins and Wetlands.

Although drumlinized till plain dominates this site district, it was difficult to find good quality, sizable, upland forests on till plain. Three of the candidate nature reserves offer limited representation - Molesworth Woods, Luther Marsh and Lily Oaks Forests. Additional airphoto analysis and fieldwork is required to select candidate nature reserves showing upland forest on till plain. Some potential sites are documented in Appendix C.

Supplementary fieldwork, documentation and comparison of the fifteen candidate nature reserves is recommended before final priorization. Because this study was an overview at a broad regional level,and significant sites were large, there was no opportunity to examine individual sites in detail. Additional research into the feasibility of protecting candidate nature reserves over the long term is also suggested. Present ownership, the designation of the site and surrounding lands in Official Plans and Zoning By-laws, and other environmental factors effecting present use and future stability (such as watershed characteristics) should be investigated.

Candidate nature reserves should either be acquired directly by public agencies,such as the Ministry of Natural Resources and Conservation Authorities, or by private groups like the Nature Conservancy or Naturalist clubs. Alternatively, the present owners could be encouraged to work cooperatively to protect areas through private landowner agreements. The significant sites identified by this study are also valuable ecological areas which should receive protection through the land-use planning process (i.e. Zoning By-laws, Official Plans).

GLOSSARY

Areas of Natural and Scientific Interest (ANSI): ANSI s are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage, scientific study or education. ANSI s may vary in level of significance. The most significant of these, Candidate Nature Reserves in the site district reports, may contribute to the achievement of the Ministry's protection objective. Those which do not contribute to the provincial protection objective are referred to as Significant Sites in the site district report.

Candidate Nature Reserve: Candidate nature reserves are sites selected on a systematic basis to represent the natural features and landscapes of Ontario and complement other protected zones in the provincial park system. Candidate nature reserves contain the best examples of the landform and vegetation features of each site district; features that may be of widespread or restricted occurrence within the site district. They are selected after comparison and evaluation of significant sites sharing similar features. Each candidate nature reserve possesses sufficient ecological integrity, buffering capacity and size that protection appears to be a viable management strategy.

Physiographic Region: Chapman and Putnam (1973) described and mapped fifty-two minor physiographic regions within southern Ontario. These physiographic regions are areas with recognizable local landform patterns. Map 1 outlines the physiographic regions that fall wholly or partially within the site district.

Significant Site: A site of at least regional significance and representative of the landform and vegetation features of the site district. Chosen after reviewing the background information available on sites of biological importance, airphoto analysis and field checking of selected areas. After final evaluation and comparison of similar significant sites, some were chosen as candidate nature reserves. However, all significant sites are recommended for protection through the land-use planning process.

Site District: A subdivision of a site region, with a characteristic pattern of physiographic features (Hills, 1959). Site districts are small scale map units that segregate substantial areas from each other on the basis of broad landform patterns. Refer to Figure 1.

Site Region: An area of land within which the response of the vegetation to the features of the landform follows a consistent pattern (Hills, 1959). Refer to Figure 1.

APPENDIX A: CANDIDATE NATURE RESERVE CHECK-SHEETS AND ENVIRONMENTAL DATA CARDS FOR SIGNIFICANT SITES IN SITE DISTRICT 6-5, WEST OF THE NIAGARA ESCARPMENT PLANNING AREA

Page Number

DUNDALK TILL PLAIN

Luther Marsh (40P/16 460650) - CNR[1] 29, 37
Hatherton Wetlands (41A/8 520000) - CNR 35, 37
Gildale Esker and Swamp (41A/2 360790) 37
Keldon Esker and Swamp (41A/1 460770) 38
Ethel Kame, Swamp and Esker (40P/11 930425) 38
Grand River Valley (40P/16 570552) 38

HORSESHOE MORAINES

UPLAND FORESTS ON TILL OR KAME MORAINE

Robson Lakes (41A/7 205200) - CNR 39, 45
Kinghurst Forest (41A/7 060080) - CNR 41, 45
Traverston Creek Forest (41A/7 035160) 43, 45
Desboro East Forest (41A/7 035160) 46
Farden Lake Forest (41A/7 240025) 46
Black Lake Forest (41A/2 205900) 46
Allan Park Forest (41A/2 060875) 47

WETLANDS WITH UPLAND FOREST

Kinghurst West Lowland/Upland (41A/7 040060) - CNR 49, 55
Beaverdale Fen (41A/7 290180) - CNR 51, 55
Harrison Lake and Fen (41A/7 080080) - CNR 53, 55
Negro Lakes (41A/7 120095) 56
McClean Lake (41A/2 095980) 56
Moss Lake (41A/2 290935) 56
Mount Forest Bog (40P/15 175655) 57
McDonald Lake (41A/2 045975) 57
Pike Lake (40P/15 155675) 57
Habermehl Lake (41A/3 975955) 58
Westfall's Lake (41A/3 000920) 58

RIVER VALLEYS, LOWLANDS ON SPILLWAY

Rocky Saugeen River (41A/7 170000) - CNR 59, 65
Feversham Gorge (41A/8 490080) 65
Lily Oak Forests (41A/7 235195) - CNR 63, 65
Turner Lake Swamp (41A/2 365925) 66
Orchard Valley Forest (41A/2 130795) 66
Beatty Saugeen Swamp (41A/2 090850) 66

TEESWATER DRUMLIN FIELD

DRUMLINIZED TILL PLAIN, MUCK

Molesworth Woods (40P/14 990463) - CNR 67, 69
Newbridge North (40P/15 025623) 69
Wroxeter Swamp (40P/14 860550) 69
Fultons Swamp (40P/15 040633) 70

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[1] CNR indicates a candidate nature reserve

Page Number

KAME MORAINE

South Saugeen River (41A/2 090727) - CNR 71, 75
Drew Bog and Swamp (40P/15 110685) - CNR 73, 75
Lakelet Lake Bog (40P/14 960675) 75
Murray's Bog (40P/14 935680) 76
Huntingfield Agreement Forest (40P/14 920710) 76
Drew Swamp West (40P/15 095683) 76

OUTWASH, ESKERS

Newbridge East (40P/15 030550) 77
Bog North of Gorrie (40P/14 904625) 77
Molesworth Esker (40P/14 915470) 77

ARRAN DRUMLIN FIELD

Skipness Drumlins and Wetlands (41A/11 850355) - CNR 79, 81
Arran Lake South (41A/6 790230) 81
Arran Lake North (41A/11 810275) 81
Allenford Swamp (41A/11 890310) 82
Elsinore Bog Complex (41A/11 813295) 82
Chesley Lake South Bog (41A/11 828307) 82

BIGHEAD VALLEY

McGill Lake (41A/7 140260) - CNR 83, 85
Spey River Headwaters (41A/7 100260) 85
North Spey River Headwaters (41A/10 135290) 85

STRATFORD TILL PLAIN

Dorking North Woodlot (40P/10 190347) 87

SAUGEEN CLAY PLAIN

East Saugeen Northeast of Dunkeld (41A/3 845935) 89
East Saugeen Oxbows (41A/3 870960) 89
East Saugeen East-Northeast of Dunkeld (41A/3 855915) 89
Elderslie Swamp (41A/6 830090) 90

GUELPH DRUMLIN FIELD

Elora Gorge (40P/9 445355) 91

HILLSBURG SAND HILLS

Alton Branch Swamp (40P/16 705545) 93
Irvine Creek (40P/16 525484) 93

SITE DISTRICT 6-5: DUNDALK TILL PLAIN - Muck, Esker, Drumlinized Till Plain

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Luther Marsh	Orangeville	40P/16 also on 40P/15	460650

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. MAX.
Wellington and Dufferin	43° 56'N	80° 25'W	1575 ft - 1650 ft.

LOCALITY 4km WNW of Grand Valley

TOWNSHIP	LOTS	CONCESSIONS
East Luther West Luther		

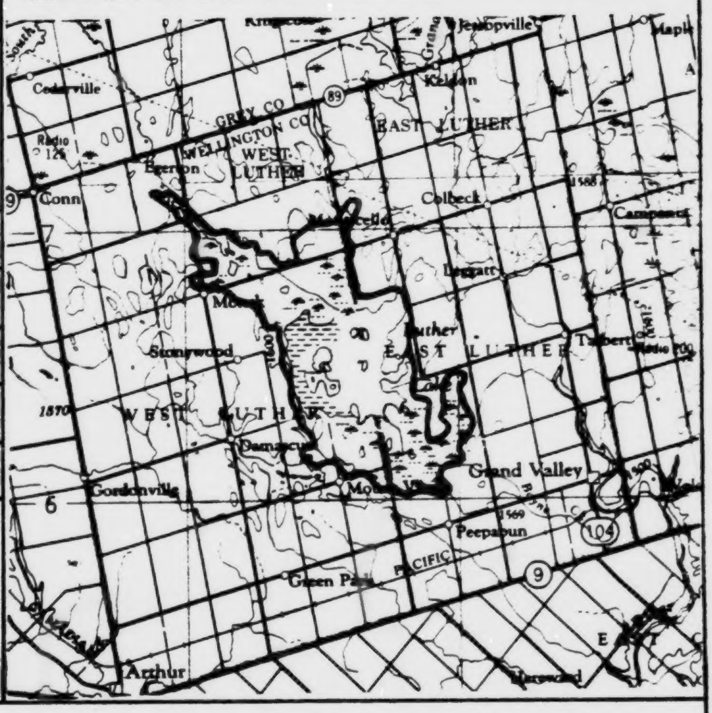
AREA ca.9,880 **acres** ca.4,000 **ha**

OWNERSHIP

ADMINISTRATION

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
Central-Cambridge	Grand River

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000 ✓



AERIAL PHOTOGRAPHS **BASE MAP:** 438802

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	98	4369	162-168
1978	99	4368	47-54
1978	99	4367	118-127
1978	99	4366	211-217
1978	100	4365	47-53
1978	100	4364	138-148
1978	101	4363	48-56

PHYSICAL AND BIOLOGICAL FEATURES

Luther Marsh is a large wetland complex, greater than 4,000 ha in extent. It forms a major headwater reservoir for the Grand River. A large and very shallow, marshy Lake was created in 1952 with the installation of a dam across the north outlet of Luther Lake. Historically, much of the flooded area was swamp, marsh and bog. The muck deposits around it support an extensive low shrub hummock bog (the Wylde Lake Bog lying in the southeast arm of the lake), mixed lowland and swamp forests (cedar - larch - aspen - birch - black ash - willow), scrub forests, shrub thickets and marsh. Northwest of the lake, a forested esker complex runs through and rises above wetland, terminating near the lake. The esker continues southeast of the lake as a very slight ridge across the Wylde Lake Bog which shows up on air photos. This is the southeastern part of the Egerton esker (also on 40P/15 and 41A/2). At least four small upland forests remain on till plain sites adjacent to the wetland complex:

(1) an intermediate-aged maple - birch - beech stand at UTM 471617,

(2) a slope forest at 424670,

(3) a shoreline forest at 438644, and

(4) drumlin slope woods at 450620.

As one of the largest inland marshes in Southern Ontario, Luther Marsh supports large

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES Lindsay, 1980, Air Photo Interpretation, Brief field visit, 20 August, 1980; IBP reports (1971), for Wylde Lake Bog (980260) and North Bog Forest (450680); North Wellington ESA, 1977, p. 50-59, 90-103; Luther Marsh Master Plan, 1978; Boyer & Dewitt, 1961; Reader, 1975, 1977, 1978.

EVALUATION AND PRIORITIES A large, diverse headwater wetland with the most extensive marsh and bog and best forested esker in Site District 6-5. Several small till plain forests.

DATE COMPILED	COMPILER
14 November, 1980	K. M. Lindsay

populations of breeding waterfowl and attracts migrating waterfowl. More than 19 species of ducks and grebes have been known to nest in the area. The most common birds, in order of abundance, are Gadwell, Blue-winged Teal, American Widgeon and Mallard. Osprey, colonies of Great Blue Heron and Black-crowned Night Heron, Hooded Merganser, Common Loon, Red-necked Grebe and Wilson's Phalarope are a few of the rare breeding species. Other fauna of note are Spotted Turtle, Ribbon Snake and Mink Frog.

Certain features of this highly significant headwater wetland and wildlife area should be protected as Nature Reserves:

1) the Wylde Lake Bog
2) the forested esker
3) the upland forest sites
4) representative examples of other vegetation types such as lowland swamp forest and marsh, and
5) critical wildlife habitats such as Heronries and Osprey nest sites.

1) The Wylde Lake Bog (UTM 480620), with over 700 ha of open, low shrub, hummock bog dominated by leatherleaf, sphagnum, bog laurel labrador tea and bog rosemary, is the most extensive bog in Site District 6-5. Floating bog mat is encroaching upon the small (20 ha), open water section of Wylde Lake. Some graminoid/shrub bog and open treed bog fringes the open water. Along the west edge, the concession roads interrupt natural water flow, resulting in a zone of altered drainage and vegetation. The moat of open water around much of the bog indicates flooded conditions. The compaction caused to the bog mat by several snowmobile trails across it, is very evident on the 1978 airphotos.

2) The Egerton esker, centred at UTM 415695 but also on 40P/15, supports high quality, deciduous and mixed forests (maple - beech - hemlock, birch, aspen - balsam fir). The complex is relatively undisturbed, although part of the esker has been mined where it crosses concession roads.

This esker site was considered to contain a greater range of vegetation (both mixed and deciduous types), in a better condition, than the three forested eskers selected for comparison. Only one other site shows deciduous stands of any extent, Keldon Esker (41A/1 460770), but its forests appear quite disturbed. Two eskers, the Gildale Esker (41A/2 360790), and the esker within Hatherton Wetlands (41A/8 520000), sustain mainly mixed forest cover. The Gildale Esker site (also part of the Egerton Esker) is at least as long as the Luther Marsh esker, if one discounts breaks in these eskers caused by mining; it runs in a forested condition for about 7 km. The esker within Hatherton Wetlands extends only a short distance, about 2 km.

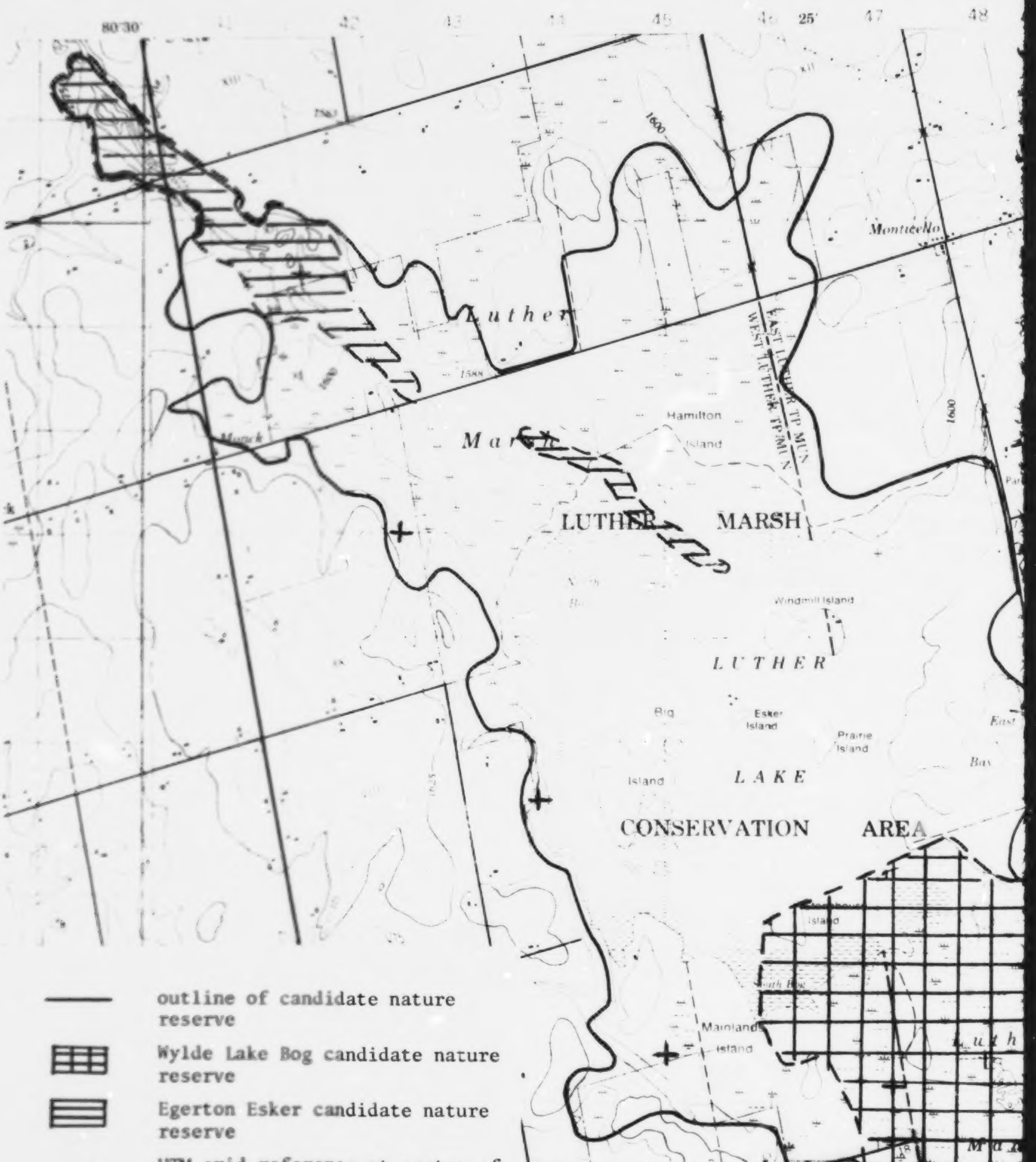
3) The four, or more, upland forests on drumlinized till plain are small (10 ha) but may offer significant representation of this feature. Few upland forests remain on till plain in Site District 6-5 and all are small remnants. Luther Marsh contains the only representation of this feature (upland forest on drumlinized till plain) selected to date, on the Dundalk Till Plain.

4) Further work is required to delineate representative examples of other vegetation types such as lowland forest and marsh and breeding habitats for critical species. This is the only site selected in Site District 6-5 that represents marsh habitats.

Luther Marsh Wildlife Management Area is jointly owned and managed by the Ministry and the Grand River Conservation Authority. Although nature reserve zones were not included as part of the 1978 Master Plan, it was noted that the philosophy of protecting representative tracts of land and water could well be compatible with the goals and objectives for Luther Marsh (page 39). Certain policies in the Master Plan, such as establishing sanctuaries around sites used by sensitive breeding species from March 15 to November 15, and closing the lake to watercraft until July 31st of each year, are designed to protect critical species.

Overall, Luther Marsh is a large, diverse and highly significant headwater wetland with associated upland features (esker and till plain). Although the marsh part of the complex was disturbed and perhaps created by flooding twenty-seven years ago, it is nonetheless a higly productive, inland, marsh.

Luther Marsh 40P/16 460650



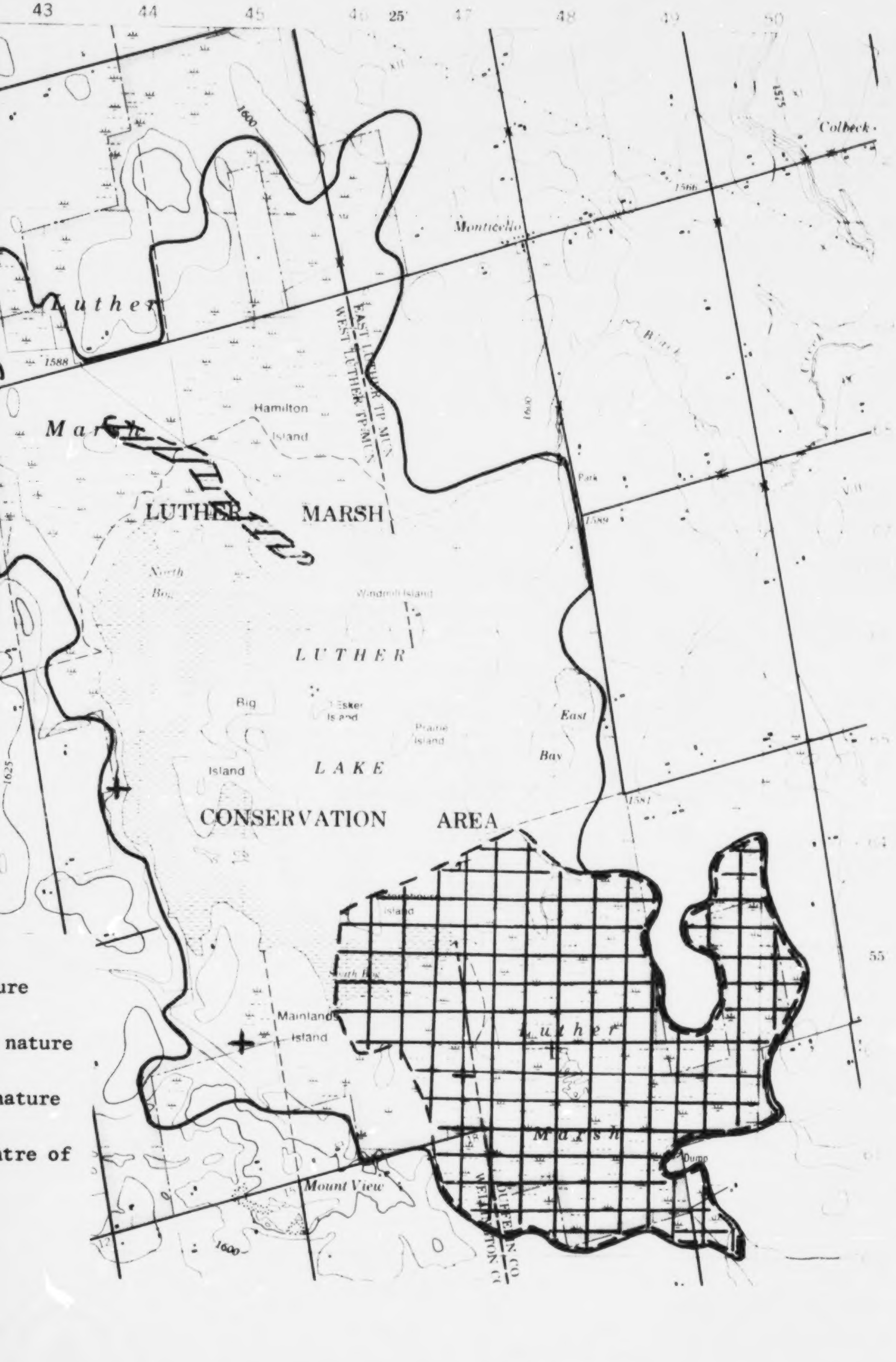
— outline of candidate nature reserve

▦ Wylde Lake Bog candidate nature reserve

☰ Egerton Esker candidate nature reserve

+ UTM grid reference at centre of 4 upland forest sites

40P/16 460650



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SITE DISTRICT 6-5: DUNDALK TILL PLAIN - Muck, Esker, Drumlin

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Hatherton Wetlands	Collingwood	41A/8	520000

Also on 41A/1

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN.	MAX.
Grey	44 °15 'N	80 ° 21'W	ca.1700 ft.	- 1725 ft.

LOCALITY: South of Hatherton

TOWNSHIP	LOTS	CONCESSIONS
Osprey		

AREA: ca.5900 acres ca.2400 ha

OWNERSHIP:

ADMINISTRATION:

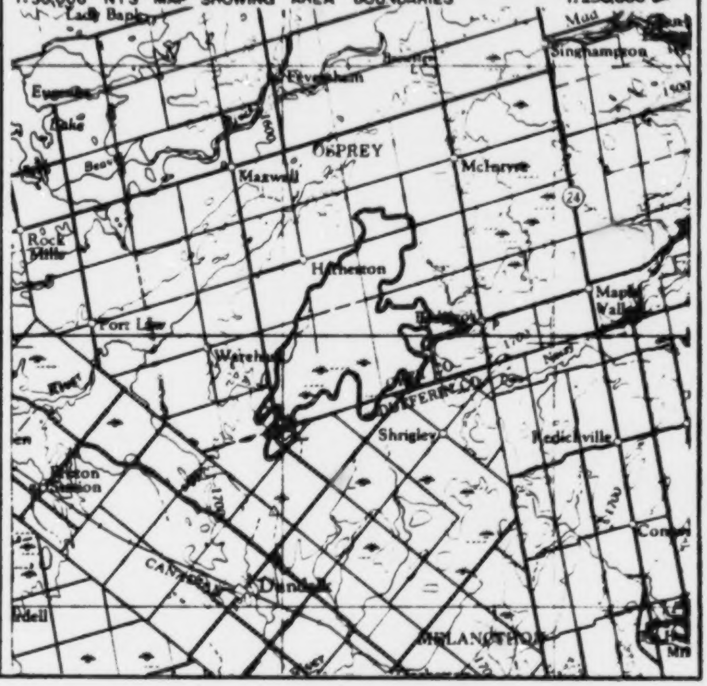
FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	Saugeen/Nottawasaga

AERIAL PHOTOGRAPHS BASE MAP: 443802/442802

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	96	4412	46-50
1966	90	4411	221-225
1966	103	4410	38-43

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This large wetland complex, at least 2400 ha in extent, is characterized by mixed and coniferous lowland and swamp forests on muck deposits. The headwaters of the Mad and Saugeen Rivers rise within the complex. It includes a forested esker and several cleared drumlins. A large bog (of roughly 160 ha), dominated by low shrub hummock bog, with some treed bog and several smaller bogs occupy the centre of the area.

Large headwater wetlands on muck deposits are a major landform type on the Dundalk Till Plain. Hatherton Wetlands is a smaller and less diverse complex than Luther Marsh (40P/16 460650), but it is still a large area with a diversity of habitats. Also, it contains different features, such as extensive lowland forests, which are of a higher quality. Its bogs are much smaller than the Wylde Lake Bog at Luther Marsh and lack open water sections. However, treed bog is more prevalent. The small esker is forested with a mixed cover. Overall, the total complex of features contained in the Hatherton Wetlands appear less disturbed. Further study and comparison with Luther Marsh is suggested.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

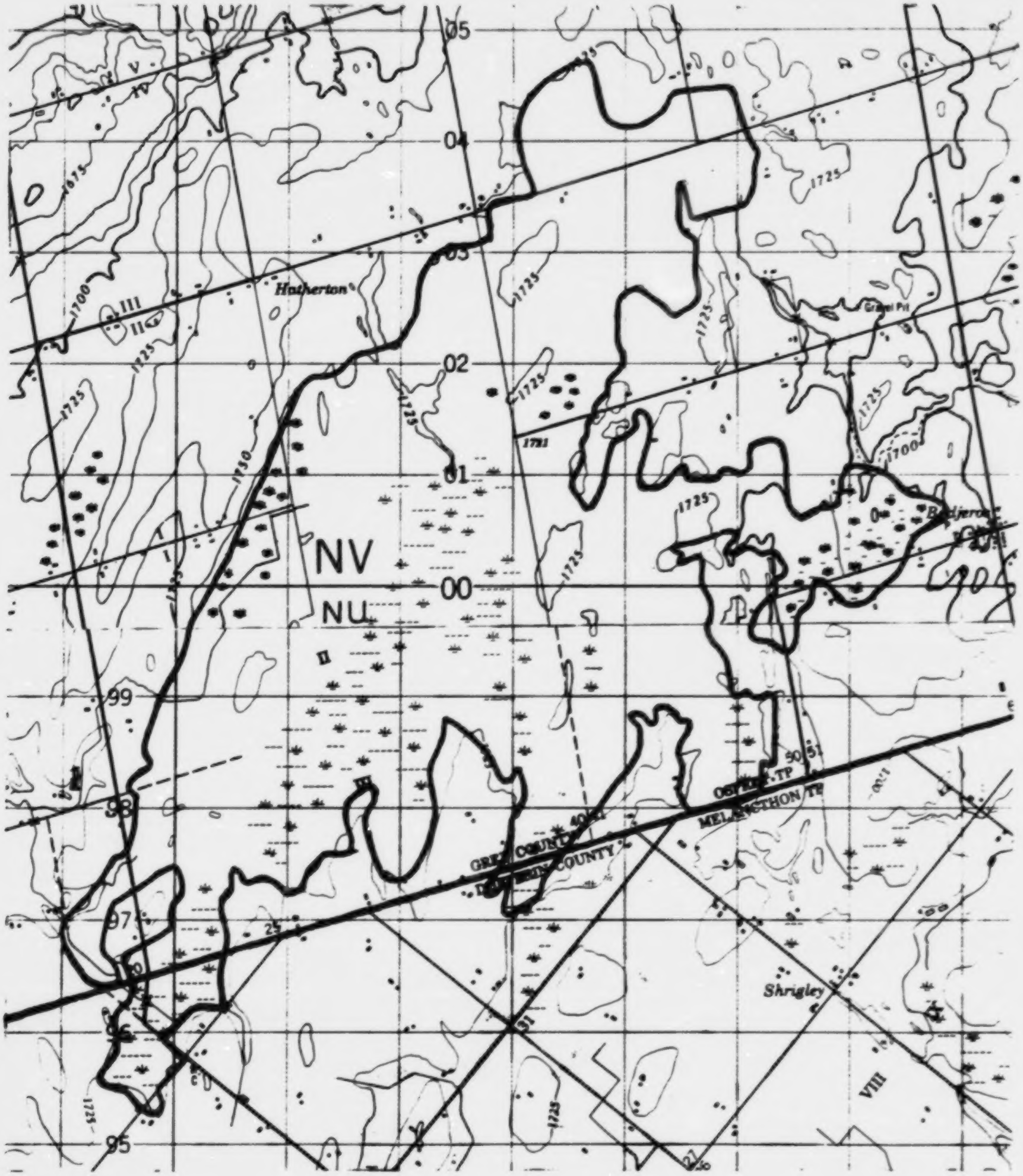
Lindsay, 1980, Air Photo Interpretation,
Cuddy, 24 July 1976, Brief field notes
Sensitive Areas Report, 1972, M.N.R.

EVALUATION AND PRIORITIES

A headwater wetland complex with low shrub and treed bog and a small forested esker.

DATE COMPILED	COMPILER
14 November, 1980	K. M. Lindsay

Hatherton Wetlands 41A/8 520000



SITE DISTRICT 6-5: DUNDALK TILL PLAIN - Muck, Esker, Drumlinized Till Plain

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Luther Marsh	40P/16	460650

also on 40P/15

BRIEF DESCRIPTION A large wetland complex (greater than 4,000 ha) at headwaters of Grand River. Located 4 km WNW of Grand Valley. Muck deposits support an extensive marsh(1000 ha), low shrub bog, the Wylde Lake Bog (700 ha), and lowland forests and scrub. A forested esker and several small upland forests on till plain are associated with complex. A highly significant wildlife area. Representative features are recommended as candidate nature reserves.

SOURCES Lindsay, 1980, Air Photo Interpretation; IBP, 1971, North Wellington ESA,1977,Luther Marsh Master Plan, 1978.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay,Mackay 20 Aug.1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Hatherton Wetlands	41A/8	520000

Also on 41A/1

BRIEF DESCRIPTION A large wetland complex(at least 2400 ha in extent) on muck deposits, south of Hatherton. The headwaters of the Mad and Saugeen Rivers rise within this complex. It includes a forested esker and several cleared drumlins. The vegetation is largely young mixed and coniferous lowland and swamp forest. A large bog(roughly 160 ha in size) occupies the centre of the complex. It consists mainly of low shrub hummock bog, with some treed bog. Recommended as a candidate nature reserve.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 24 July 1976, Brief field notes; Sensitive Areas Rpt. 1972

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Gildale Esker and Swamp	41A/2	360790

BRIEF DESCRIPTION Part of the Egerton esker extends along the west side of this ca. 600 ha area. Wetlands (scrub forest, mixed swamps, shrub thicket,marsh) occupy the muck deposits east of the esker. A meandering, slow-flowing, section of the South Saugeen River passes through the area. Most of the esker is intact,forested with younger mixed vegetation(birch-balsam fir-spruce-cedar-aspen-maple-cherry).Adjacent to the 3 concession roads, it is mined. The lowland swamps along the South Saugeen river have experienced flooding. The Saugeen Valley Cons.Auth. manages some of the land here.

SOURCES Lindsay, 1980, Brief field notes; South Grey ESA 1978; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay,Mackay 20 Aug. 1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

SITE DISTRICT 6-5: DUNDALK TILL PLAIN - Muck, Esker, Kame, Spillway

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Keldon Esker and Swamp	41A/1	460770

BRIEF DESCRIPTION Lying 1 km west of Keldon this ca. 550 ha area features a partially forested esker running northwest-southeast. Scrub and mixed swamp lowlands occupy the muck deposits on its west and east sides. Drainage is into the Grand River. The esker forests consist mainly of sugar maple-aspen-cherry-birch with some cedar-spruce-birch. Disturbances include logging, grazing, drainage and mining of the esker.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Grey ESA 1978,IBP,1972;Sensitive Areas Report,1972;Cuddy,1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Ethel Kame, Swamp and Esker	40P/11	930425

BRIEF DESCRIPTION 4km NE of Ethel. This 90 ha site consists mainly of upland forest on kame moraine hills (sugar maple, black cherry, beech, hemlock) and swamp forest (black ash - yellow birch) occupying the intervening lows. A small part of an esker, roughly 5km, crosses west corner. Like the kame hills, it supports deciduous forest. Plantation and old fields are found as well. Owned at least in part by the Maitland Valley Conservation Authority.

SOURCES Lindsay, 1980. Air Photo Interpretation; IBP, 1972, Cuddy, 1976

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Grand River Valley	40P/16	570552

BRIEF DESCRIPTION A 6 km stretch along the Upper Grand River between Waldemar and Belwood that remains in a relatively natural condition. On spillway deposits. Approximately 200 ha. Contains partially forested valley slopes and floodplain and floodplain meadows. Four concession roads cross valley. Floodplains would be influenced by water level controls upstream at Luther Lake dam and downstream at Lake Belwood dam. Parts grazed. Homes near roads.

SOURCES Lindsay,1980, Map and Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay, Terpstra, 18 Dec.80			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
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1981

SITE DISTRICT 6-5: HORSESHOE MORAINES - Upland Forest on Till Moraine

LIFE SCIENCE INVENTORY CHECKLIST

from Significant Natural Areas Along Niagara Escarpment (1976)

NAME	MAP NAME	MAP NUMBER	UTM REF.
Robson Lakes	Markdale	41A/7	205200

COUNTY	LAT.	LONG.	ALT. MIN. MAX.
Grey	44 ° 26 'N	80 ° 45 'W	ca. 1225 ft.-1375 ft.

TOWNSHIP
Holland

LOTS	CONCESSIONS
9-12	VIII
10-12	IX
9-11	X

AREA
ca. 1970 acres ca. 790 ha

OWNERSHIP
Private/Conservation Authority

ADMINISTRATION
-/North Grey C.A.

SITE REGION
6E

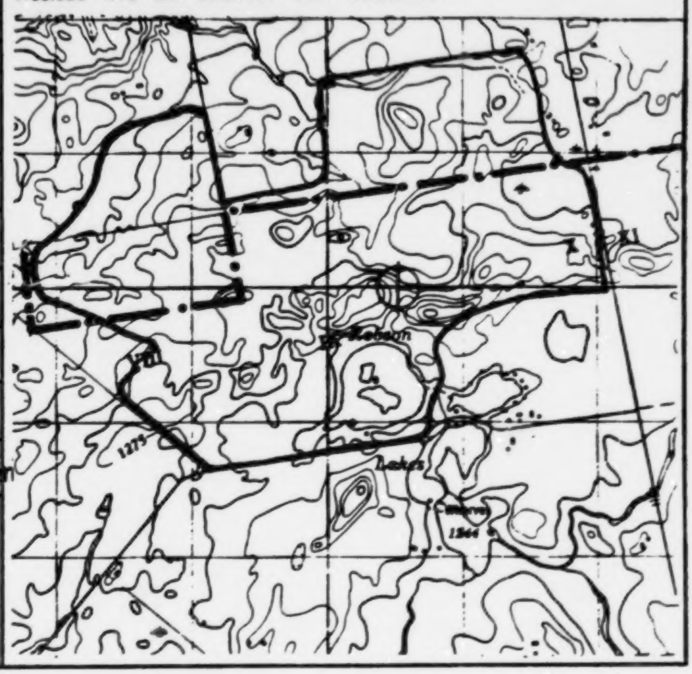
FOREST REGION AND DISTRICT
L-1

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	North Grey/Saugeen

AERIAL PHOTOGRAPHS BASE MAP: 444803, 444804

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	93	4418	138-143

1:50,000 NTS MAP SHOWING AREA BOUNDARIES



PHYSICAL AND BIOLOGICAL FEATURES

The Robson Lakes Candidate Nature Reserve is a forested moraine area which forms part of the height of land separating the Bighead and Saugeen watersheds. The Niagara Escarpment Planning Area boundary passes through the area.

The area has numerous, steep, bouldery till slopes and frequent kettle depressions with no above surface drainage. Consequently soil moisture conditions vary considerably--from dry mesic to saturated. While the Robson Lakes have not been examined, there is at least one small permanent pond in a kettle north of the lakes. There are also swampy forests, open bogs, springs, seeps and several creeks in the area.

Obviously there is considerable variation in the vegetation. There is considerable intermediate aged to mature upland (sugar maple dominated) forest, some of which has been logged in recent years. Much of this forest is floristically very rich. Some of the interesting species occurring are: Panax quinquefolium (ginseng), Phyllitis scolopendrium (hart's-tongue fern), Camptosorus rhizophyllus (walking fern), Hydrophyllum canadense, H. virginianum (waterleaf), Athyrium pycnocarpon (narrow-leaved spleenwort) and Dryopteris goldiana (Goldie's fern). Also of

cont.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	0	SUMMARY SPECIES LISTS	●
VEGETATION SUMMARY	0	PHYSICAL FEATURES MAP	0
EVALUATION SHEET	0	VEGETATION MAP	0
COMMUNITY DESCRS.	0	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	0

MAJOR INFORMATION SOURCES

Cuddy, 7, 8 Sept. 1975, Field notes
Additional Sources(added by Lindsay, 1980)
Argus and White, 1977; Beechey, 1978; Lindsay, 1980, Air Photo Interpretation, Brief field visit, 18 August, 1980.

EVALUATION AND PRIORITIES

A very interesting candidate area which, though not escarpment related, should be protected pending further studies.

DATE COMPILED	COMPILER
18 April 1976	D.G. Cuddy

special interest is the super-abundance of Impatiens pallida (pale jewel-weed) on some of the slopes.

Swamp forests, both mixed and deciduous occur and are representative though not especially mature or otherwise interesting. The small kettle pond has a narrow coniferous forest margin as well as a slight edge of floating shrub mat.

Due west of the northwesternmost pond of the Robson Lakes are some areas of shrub and sedge bog. These have a scattering of larch trees and a ground cover of acidophilic shrubs, sedges and sphagnum moss. Several interesting sedges and orchid species grow in the bog and along the margin of a creek which flows through the western bog.

Overall, the Robson Lakes area is exceptional. It has many plants normally associated with the escarpment, here found on or about limestone or dolomite boulders. There appears to be an excellent variety of wildlife in the area. Additional field research is necessary to adequately assess the area; there is for example an interesting looking (airphoto interpretation) creek and forest north of Lily Oak. The Robson Lakes area is essentially contiguous via forested land with the Walters Creek Headwater candidate area.

COMMENTS ADDED BY LINDSAY, 1980

During the summer of 1976, Cuddy discovered selective logging and new roads and gravel test pits in parts of this moraine complex. Beechey (1978) reported that parts of the forest on Lots 11 and 12, Concession IX, had been selectively logged for hardwoods. As well, application has been made under the Pits and Quarries Act to extract 3.5 million tons of aggregate (100,000 tons per year) from Lots 11 and 12, Concession IX during a 35-year period. This proposed removal of aggregated would virtually eliminate the nucleus of the candidate nature reserve.

Within Site District 6-5, Robson Lakes is one of the best sites representing upland hardwood forest on steeply rolling till moraine, along with a variety of wetland features - kettle ponds and bogs, lowland forests and headwater springs and small creeks. Seven provincially rare plants flourish in the area. Beechey (1978) noted that particularly fine examples of upland forest and terrain occurred on Lot 11, Concession IX, and Lots 10 and 11, Concession X.

Robson Lakes is at least twice as large, and thus probably more diverse, than the other significant sites that feature upland forest on till moraine in this site district. Kinghurst Forest (41A/7 060080) ranks very closely and merits further comparison. Two other candidate nature reserves also contain significant upland forests on till moraine but feature a greater proportion of wetland - Kinghurst West Lowland/Upland (41A/7 040060) and Lily Oaks Forests (41A/7 235195). Another, Desboro East Forest (41A/7 035165) was not selected as a candidate nature reserve because it is less diverse and more disturbed.

SITE DISTRICT 6-5: HORSESHOE MORAINES - Upland Forest on Till Moraine or Kame Moraine

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Kinghurst Forest	Markdale	41A/7	060080

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN.	MAX.
Grey	44° 20'N	80° 55'W	ca. 1000 ft	- 1175 ft

LOCALITY: Immediately east of Kinghurst

TOWNSHIP: Sullivan

LOTS:

CONCESSIONS:

AREA: ca. 1,000 acres ca. 400 ha

OWNERSHIP:

ADMINISTRATION:

FOREST REGION AND DISTRICT: L.1

SITE REGION AND DISTRICT: 6-5

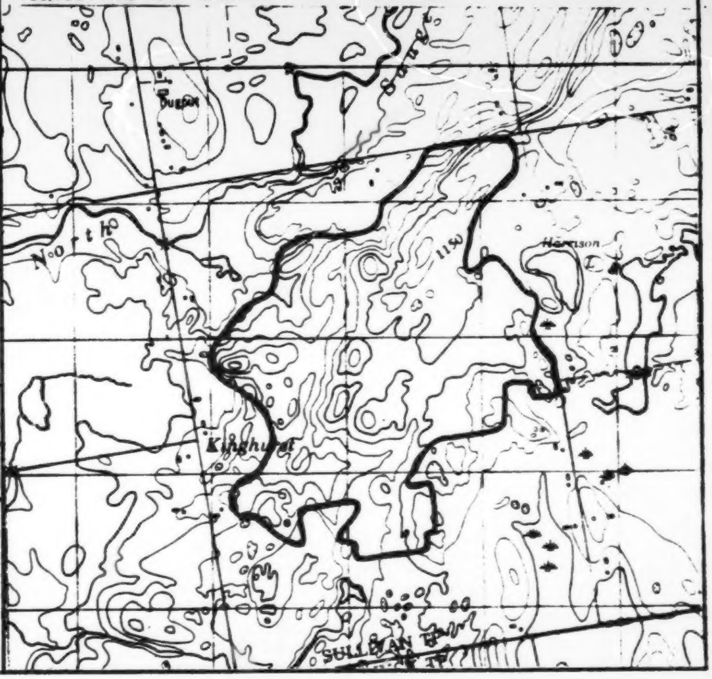
MNR REGION AND DISTRICT: SW-Owen Sound

CONSERVATION AUTHORITY: Saugeen

AERIAL PHOTOGRAPHS BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	95	4414	61-64
1966	94	4413	81-83

1:50,000✓ NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

Kinghurst Forest is a large upland forest complex of ca. 400 ha, on strongly rolling till moraine. This forested highland separates drainage into the North Saugeen and Styx Rivers, two tributaries of the Saugeen. Mature and intermediate-aged sugar maple forest predominates on its gravelly-bouldery till slopes and uplands. Kettle depressions holding woodland ponds, open shrub bog, and swampy forest are fairly common. Significant plants discovered include ginseng *(Panax quinquefolium)*, walking fern *(Camptosorus rhizophyllous)*, goldie's fern *(Dryopteris goldiana)* and glade fern *(Athyrium pycnocarpon)*. At least part of the forest has been selectively cut, apparently under a Woodlands Improvement Act agreement (Lot 27, Conc. IV). A recently constructed gravel forest road provides access from the concession road on the east side.

In very broad terms, Kinghurst Forest has many of the habitat types that are found at Robson Lakes (41A/7 205200) - well-drained, bouldery upland and slope hardwood forests, kettles with a variety of pond, bog and swamp wetland types and mixed lowlands - on typical, till moraine terrain. As well, the forests of the Kinghurst area may be more mature and less disturbed than those at Robson Lakes. However, there are differences in the two sites. Limestone boulders sustaining calcium-loving plants are more frequent at Robson Lakes, as are springs and creeks. The rich ground layer found at

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Lindsay, 1980, Air Photo Interpretation; Brief field visit, 27 August 1980.
Cuddy, 1976, Air Photo Interpretation
Beechey, 1978, Assessment of Robson Lakes

EVALUATION AND PRIORITIES: Excellent upland forest on till moraine with some kettle wetlands (small ponds, bogs, lowland forests).

DATE COMPILED: 19 November 1980

COMPILER: K. M. Lindsay

Robson Lakes is exceptional. Kinghurst Forest is about half the size of Robson Lakes but it does connect with two candidate nature reserves, Harrison Lake and Fen and Kinghurst West lowland/Upland (41A/7 040060). Further studies are suggested to document and compare the habitats, vegetation, flora and fauna, and overall condition of Kinghurst Forest and Robson Lakes.

SITE DISTRICT 6-5: HORSESHOE MORAINES - Upland Forest on Till Moraine or Kame Moraine

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Traverston Creek Forest	Markdale	41A/7	260010

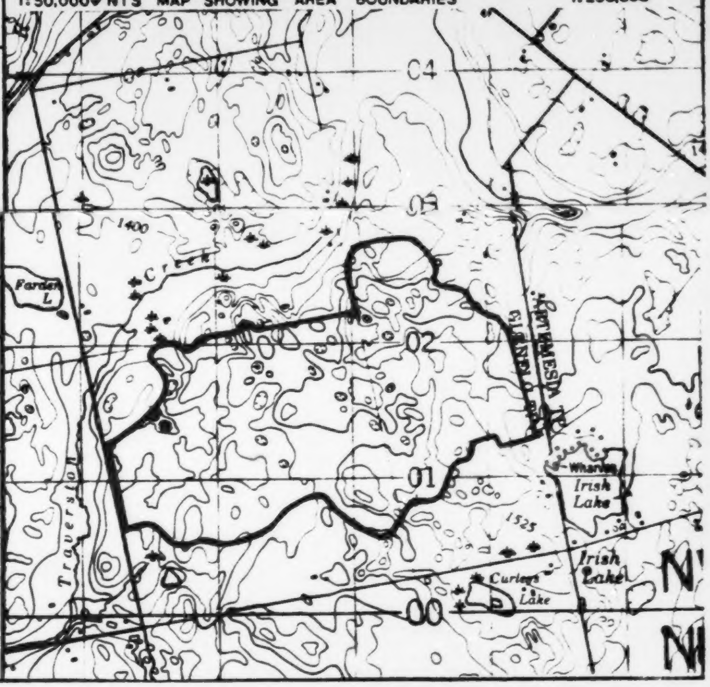
COUNTY, DISTRICT or REGIONAL MUNICIPALITY Grey

LAT. 44° 16' N **LONG.** 80° 40' W **ALT. MIN.** ca. 1,400 ft. **MAX.** - 1575 ft.

LOCALITY 5 km south of Markdale

TOWNSHIP Glenelg **LOTS** **CONCESSIONS**

1:50,000✓NTS MAP SHOWING AREA BOUNDARIES 1:250,000



AREA ca. 740 **acres** ca. 300 **ha**

OWNERSHIP

ADMINISTRATION

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	Saugeen

AERIAL PHOTOGRAPHS **BASE MAP:** 443803

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	96	4412	28-30
1966	96	4411	204-206

PHYSICAL AND BIOLOGICAL FEATURES

Lying immediately south of the headwater reaches of Traverston Creek, this large upland (ca. 300 ha) is characterized by steeply rolling, irregular, kame moraine hills forested with intermediate-aged sugar maple. Small clearings are scattered throughout the forest. Twenty to thirty percent of area is planted with coniferous reforestation. Soils are Pike Lake loams. A few small ponds lie along the west edge. The following significant plants were found: ginseng *(Panax quinquefolium)*, goldies' fern *(Dryopteris goldiana)* and glade fern *(Athyrium pycnocarpon)*.

This candidate nature reserve was selected to represent upland forest on kame moraine. It is more extensive and in better condition than three other kame moraine forests - Farden Lake Forest (41A/7 240025), Black Lake Forest (41A/2 205900) and Allan Park Forest (41A/2 060875). This kame moraine area may be composed of drier forest sites than are found at Robson Lakes (41A/7 205200) and Kinghurst Forest (41A/7 060080), two upland forest complexes on till moraine. Further study and comparison with these two sites is suggested.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION ☐
VEGETATION SUMMARY ☐
EVALUATION SHEET ☐
COMMUNITY DESCRS. ☐
COMMUNITY COMP. LISTS ☐

SUMMARY SPECIES LISTS ☐
PHYSICAL FEATURES MAP ☐
VEGETATION MAP ☐
BIBLIOGRAPHY ☐
PHOTOGRAPHS ☐

MAJOR INFORMATION SOURCES

Lindsay, 1980, Air Photo Interpretation; Brief field visit, 21 August, 1980; Cuddy, 1976; Beechey, 1978, Assessment of Robson Lakes; Gillespie and Richards, 1954.

EVALUATION AND PRIORITIES

Best upland forest on kame moraine in Site District 6-5.

DATE COMPILED	COMPILER
24 November 1980	K. M. Lindsay

SITE DISTRICT 6-5: HORSESHOE MORAINES - Upland Forest on Till Moraine
or Kame Moraine

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Robson Lakes	41A/7	205200

BRIEF DESCRIPTION An extensive forest (ca. 800 ha) on steeply rolling till moraine. Soils are Pike Lake, Osprey and Sargent loams and muck. The bouldery till slopes are dominated by sugar maple. Mixed swamps lie in lowlands. Kettle depressions with ponds and bog-swamp edges are frequent. Seven rare plants. A groundwater recharge area producing springs and several creeks. Part disturbed by selective logging and new roads; threatened by proposed gravel extraction. A candidate nature reserve.

SOURCES Significant Natural Areas Along Niagara Escarpment (1976); Beechey, 1978; Lindsay, 1980, Air Photo Interpret.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay, Mackay 19 Aug. 1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Kinghurst Forest	41A/7	060080

BRIEF DESCRIPTION
East of Kinghurst, a large upland forest complex (ca.400 ha) on strongly rolling till moraine. Mature and intermediate-aged sugar maple covers gravelly-bouldery till slopes (Osprey and Pike Lake loams). Woodland pools, open shrub bog and swamps occupy kettle depressions. Significant plants are found. Part has been selectively logged. It adjoins two candidate nature reserves. (41A/7 080080) and Kinghurst West Lowland/Upland (41A/7 040060).

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976; Beechey, 1978; Gillespie and Richards, 1954.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay, Mackay 28 Aug. 1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Traverston Creek Forest	41A/7	260010

BRIEF DESCRIPTION A large (ca.300 ha) upland forest on steeply rolling kame moraine (Pike Lake loam), wooded with intermediate-aged sugar maple. 5 km S. of Markdale. Significant plants found -*Panax quinquefolium, Dryopteris goldiana, Athyrium pycnocarpon*. Scattered clearings; 20 to 30% is coniferous reforestration; a few small ponds on west side. The portion visited was in excellent condition. Suggested by Beechey (1978) for comparison with Robson Lakes. A candidate nature reserve.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976; Beechey, 1978; Gillespie and Richards, 1954.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay, Mackay 21 Aug. 1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 6-5: HORSESHOE MORAINES - Upland Forest on
Till Moraine or Kame
Moraine

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Desboro East Forest	41A/7	035165

BRIEF DESCRIPTION This area is characterized by a large (ca.350 ha) upland forest tract on strongly rolling till moraine. Soils of Osprey loam predominate. A small kettle depression infilling with wetland vegetation, is located in the southwest. Portions show evidence of selective logging.Other parts sustain intermediate-aged to mature sugar maple. Should be examined in field.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976; Gillespie and Richards, 1954.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980.

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Farden Lake Forest	41A/7	240025

BRIEF DESCRIPTION

Mainly on kame moraine, this 280 ha area is comprised of: 1) upland deciduous forest on Pike Lake and Brisbane loams, 2) mixed lowlands on muck in south and encircling Farden Lake, 3) the cedar-lined valley of the Rocky Saugeen River on spillway deposits. 6 km SW of Markdale.

SOURCES Lindsay,1980,Air Photo Interpretation;Cuddy,1976; South Grey ESA,1978;Sensitive Areas Report, 1975; Gillespie and Richards, 1954.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Black Lake Forest	41A/2	205900

BRIEF DESCRIPTION A 160 ha upland forest on kame moraine (Pike Lake loam). 6 km ESE of Durham. Includes a kettle pond, some lowland forest, and tributaries of the Saugeen River. Suggested by Beechey (1978) for comparison with the Robson Lakes area. However this site is smaller than similar significant sites and somewhat disturbed by roads and plantation.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976; Beechey, 1978; Gillespie and Richards, 1954.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

SITE DISTRICT 6-5: HORSESHOE MORAINES-Upland Forest on Till Moraine or Kame Moraine

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Allan Park Forest	41A/2	060875

AREA DESCRIPTION Located 2.5 km S. of Allan Park, an upland forest on knobby kame moraine terrain, of ca.160 ha. Soils are Donnybrook sandy loams. Has some lowland forest and a man-made pond. Suggested by Beechey (1978) for comparison with Robson Lakes, however, this is a much smaller and lower quality site. Impacts include trail bike paths.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Grey ESA, 1978; Beechey, 1978; Gillespie and Richards, 1954.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Kinghurst West Lowland/Upland	Markdale	41A/7	040060

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN.	MAX.
Grey	44° 19' N	80° 57' W	ca. 1000 ft	- 1150 ft

LOCALITY 10 km southwest of Williamsford; just west of Kinghurst

TOWNSHIP	LOTS	CONCESSIONS
Bentinck Sullivan		

AREA ca. 1,360 acres ca. 550 ha

OWNERSHIP

ADMINISTRATION

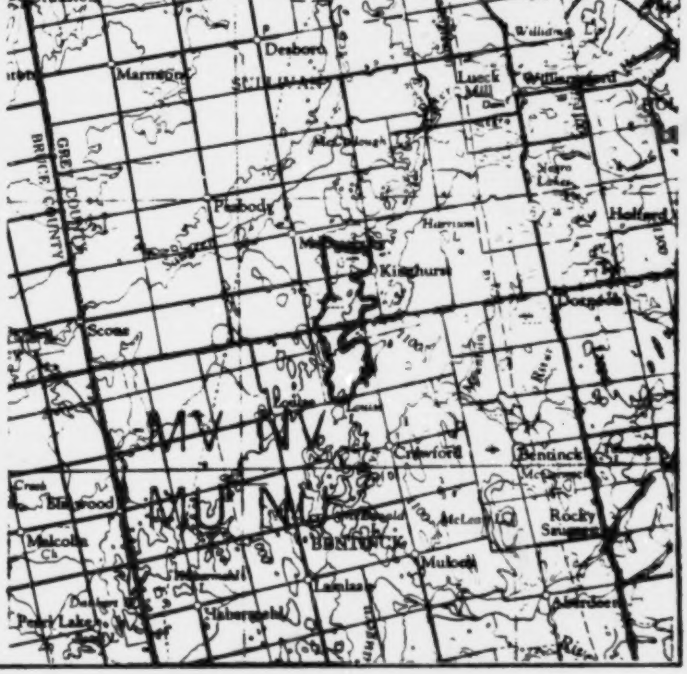
FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	Saugeen

AERIAL PHOTOGRAPHS BASE MAP: 443804

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	95	4414	60, 61
1966	94	4413	80, 81
1966	96	4412	13,14

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000 ✓



PHYSICAL AND BIOLOGICAL FEATURES

This ca.550 ha extends from north of Louise Lake to west of Kinghurst, on till moraine, till plain and spillway deposits. At UTM 036026, an unnamed lake displays a shoreline zonation of bluejoint-sedge meadow marsh (*Calamagrostis-Carex)*, floating fen mat *(Cladium, Carex, Parnassia glauca, Lobelia kalmii, Utricularia cornuta)*, and shallow bulrush marsh. A culvert under the concession road on its south side serves as an outlet. The lake drains south into Louise Lake which feeds into Louise Creek and the Styx River. Rolling gravelly-bouldery till ridges wooded with sugar maple and white birch forest, in excellent condition, occupy about 100 ha. Soils are Pike Lake loams. Glade fern (*Athyrium pycnocarpon)* was observed. Small woodland pools in kettles and clearings are occasional. In the north, a mixed lowland forest (cedar - larch - white pine - silver maple - birch - black ash - spruce - basswood) lies on till plain and spillway along tributaries of the North Saugeen River. The northernmost section contains a small headwater lake. Two concession roads cross this large area but do not have major effects.Next to the concession road which skirts the south side of the unnamed lake, the fen mat is slightly trampled.

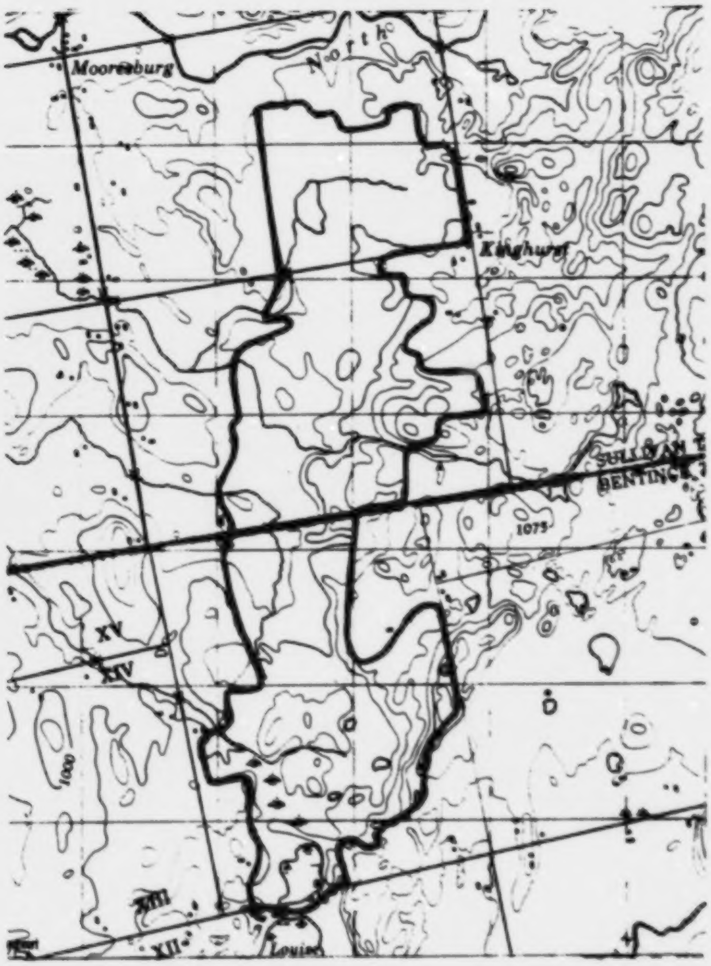
In summary, this candidate nature reserve contains a diversity of habitats - a kettle lake with floating fen and marsh border, a maple-birch upland forest on till moraine, scattered small kettles and an extensive lowland swamp. These features in combination

DATA SHEETS ATTACHED				MAJOR INFORMATION SOURCES
PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐	Lindsay, 1980, Air Photo Interpretation; Brief field visit, 21 August 1980; South Grey ESA, 1978; Sensitive Areas Report, 1975; Cuddy, 1976; Gillespie and Richards, 1954.
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐	
EVALUATION SHEET	☐	VEGETATION MAP	☐	
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐	
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐	

EVALUATION AND PRIORITIES A representative and diverse complex of kettle lakes and wetlands (including marsh and floating fen lake margin), till moraine uplands and spillway lowlands in a headwater location.

DATE COMPILED	COMPILER
26 November 1980	K. M. Lindsay

with its size, high quality and headwater location, make this a high-ranking wetland/upland complex. It adjoins another candidate nature reserve, the Kinghurst Forest (41A/7 060080). Further inventory work is suggested.



SITE DISTRICT 6-5: HORSESHOE MORAINES - Wetlands with Upland Forest

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Beaverdale Fen	Markdale	41A/7	290180

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. - MAX.
Grey	44° 25′N	80° 38′W	ca. 1400 ft.-1450 ft.

LOCALITY 2 km northwest of Beaverdale; 11 km north of Markdale

TOWNSHIP Euphrasia **LOTS** **CONCESSIONS**

AREA ca.400 acres ca.160 ha

OWNERSHIP

ADMINISTRATION

FOREST REGION AND DISTRICT L.1

SITE REGION AND DISTRICT 6-5

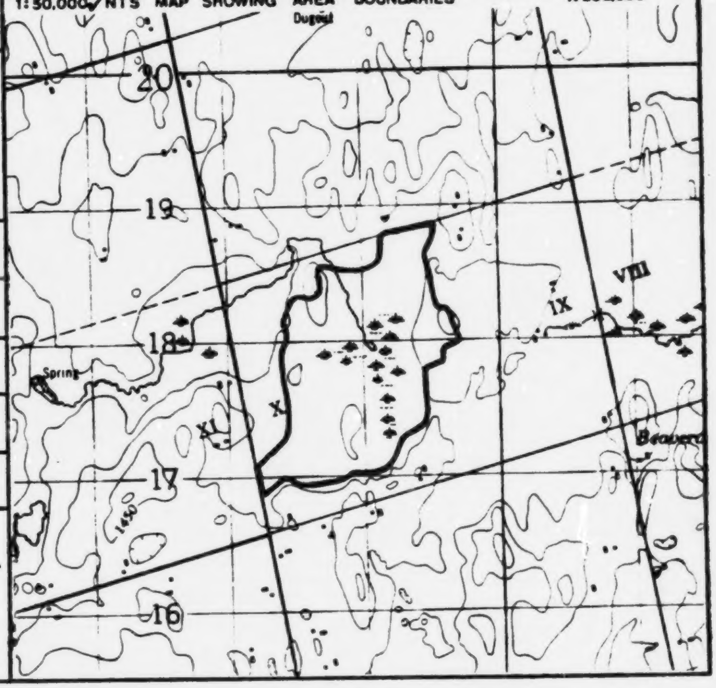
MNR REGION AND DISTRICT SW-Owen Sound

CONSERVATION AUTHORITY Saugeen

AERIAL PHOTOGRAPHS BASE MAP: 444803

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	93	4418	145-147
1966	93	4417	199-201

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This ca. 160 ha.fen fills a depression on till plain which is bordered by several small drumlins, open fen, wetter fen, very small pools of open water and treed fen vegetation enclose a small open pool at the centre of the area. The fen covers about 30 ha of the site. *Carex lasiocarpa, limosa* and *chordorrhiza* are dominant sedges. Parts of the fen display a ribbed or banded pattern of communities. A small creek apparently flows north out of the area and disappears in a sinkhole at UTM 266178. However, the drainage pattern may be more complex. Sinkhole drainage has also been reported along Wodehouse Creek to the east (Cowell and Ford, 1975), and this site could also function as a sink. Prairie white-fringed orchid *(Habenaria leucophaea)* has been recorded from the fen. This provincially rare plant is presently known from only 6 sites in Southern Ontario. Forested slopes and two partly wooded drumlins surround part of the fen, buffering it from adjacent farmland .

The 1978 air photos show flooding that is not present on the 1966 air photos.

Its diversity of habitats, relatively large size and excellent condition, in combination with a buffer of slope and upland forest give this area a top ranking. Only one other candidate nature reserve in Site District 6-5, Harrison Lake and Fen

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION ☐
VEGETATION SUMMARY ☐
EVALUATION SHEET ☐
COMMUNITY DESCRS. ☐
COMMUNITY COMP. LISTS ☐
SUMMARY SPECIES LISTS ☐
PHYSICAL FEATURES MAP ☐
VEGETATION MAP ☐
BIBLIOGRAPHY ☐
PHOTOGRAPHS ☐

MAJOR INFORMATION SOURCES

Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976; Sensitive Areas Report, 1975;Argus and White, 1977; CAN, unpublished distribution map for *Habenaria leucophaea;* Cowell and Ford, 1975.

EVALUATION AND PRIORITIES

An extensive, high quality, open fen lying on drumlinized till plain. Enclosed by partially forested drumlin slopes. One of the two best fens in Site District 6-5.

DATE COMPILED 25 November 1980

COMPILER K. M. Lindsay

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

(41A/7 080080), features a fen of similiar extent. Compared with the Beaverdale Fen, it rates very closely in terms of diversity, size, condition and buffering. Further inventory and comparison of the features and condition of both of these sites is required. Both are recommended as candidate nature reserves because they are outstanding sites, and may contain different habitats and associations. As well, wetlands, particularly fens and bogs, are susceptible to water level changes.

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Harrison Lake and Fen	Markdale	41A/7	080080

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. MAX.
Grey	44 ° 19′N	80 ° 54′W	ca.1125 ft. - 1150 ft.

LOCALITY 14 km south of Chatsworth

TOWNSHIP	LOTS	CONCESSIONS
Sullivan		

AREA ca. 370 **acres** ca. 150 **ha**

OWNERSHIP

ADMINISTRATION

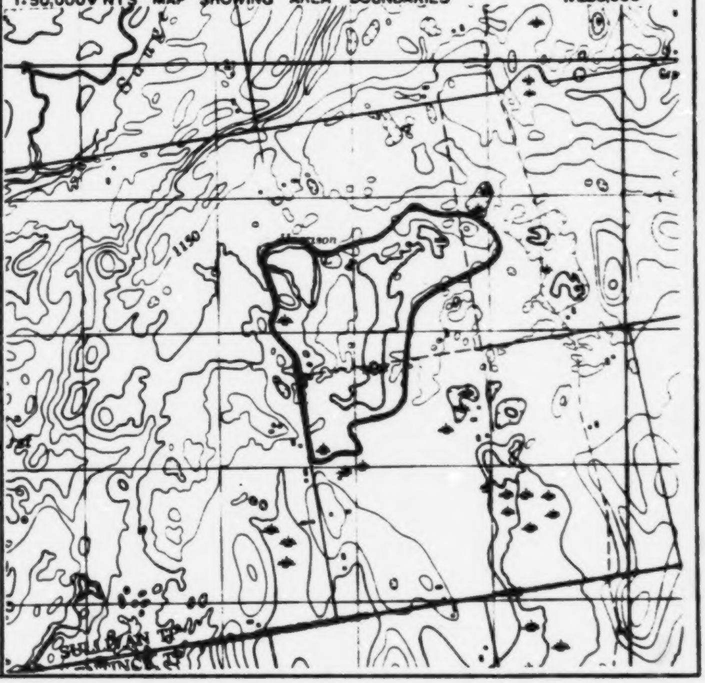
FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	Saugeen

AERIAL PHOTOGRAPHS **BASE MAP:**

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	95	4414	62 - 64

1:50,000 ✓ NTS MAP SHOWING AREA BOUNDARIES **1:250,000**



PHYSICAL AND BIOLOGICAL FEATURES

This 150 ha site on till moraine includes Harrison Lake and a long depression filled with open fen. An extensive floating mat dominated by sedges (*Carex, Cladium*) surrounds three small open pools. It occupies about 30 ha. The fen has scattered sphagnum hummocks with clumps of leatherleaf, small larch and cedar, and an occasional marshy section. Deciduous and mixed lowland and upland forests border the depression. A zone of very wet shrub thickets forms a moat at the edge of the depression. Hart's-tongue fern (*Phyllitis scolopendrium*) and northern holly fern (*Polystichum lonchitis*) are reported from the sugar maple forest between the fen and Harrison Lake. An abandoned corduroy road crosses the fen at its south end. On this road, near the southwest edge of the fen, a new home is under construction.

The Harrison Lake Fen is one of the most extensive, infilled, open fens in Site District 6-5. In terms of its size and the range of broad habitats that are found, it is comparable to Beaverdale Fen (41A/7 290180); the only other fen of similar extent in this site district. The Harrison Lake Fen is slightly more disturbed (by corduroy road and new home) and not quite as well buffered from adjacent farm fields. However, both fens are outstanding and may contain different habitats and associations. As well, wetlands, particularly fens and bogs are susceptible to water level changes. Further documentation and comparison of these two sites is suggested. The

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION ☐
VEGETATION SUMMARY ☐
EVALUATION SHEET ☐
COMMUNITY DESCRS. ☐
COMMUNITY COMP. LISTS ☐
SUMMARY SPECIES LISTS ☐
PHYSICAL FEATURES MAP ☐
VEGETATION MAP ☐
BIBLIOGRAPHY ☐
PHOTOGRAPHS ☐

MAJOR INFORMATION SOURCES

Lindsay, 1980, Air Photo Interpretation, Brief field visit, 28 August 1980; South Grey ESA, 1978; Cuddy, 1976.

EVALUATION AND PRIORITIES

An extensive, open fen on till moraine deposits. One of two best fens in Site District 6-5. Site includes a kettle lake and upland forest.

DATE COMPILED	COMPILER
25 November 1980	K. M. Lindsay

Harrison Lake Fen adjoins Kinghurst Forest (41A/7 060080), a large candidate nature reserve representing upland forest on till moraine.

SITE DISTRICT 6-5: HORSESHOE MORAINES- Wetlands with Upland Forest

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Kinghurst West Lowland/Upland	41A/7	040060

BRIEF DESCRIPTION Situated mainly on till moraine and spillway, this 550 ha area includes: 1)ca.100 ha of intermediate-aged sugar maple-white birch forest on rolling gravelly-bouldery ridges, with occasional clearings - soils are Pike Lake loams. 2)a small lake with shoreline-zones of *Calamagrostis-Carex* meadow marsh, floating fen mat(*Cladium, Carex)* and shallow bulrush marsh, 3)small kettles & swampy lowlands. In the north, a large mixed lowland forest lies on spillway and till plain along tributaries of the North Saugeen River. Two concession roads cross area. A candidate nature reserve.

SOURCES South Grey ESA,1978; Sensitive Areas Report,1975;Cuddy, 1976;Gillespie & Richards,1954;Lindsay,1980,Air Photo Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay,Mackay 21 Aug.1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Beaverdale Fen	41A/7	290180

BRIEF DESCRIPTION Lying 2 km NW of Beaverdale, this ca. 160 ha fen fills a depression on till plain, edged by several small drumlins. Open fen, wetter fen, very small pools of open water and treed fen enclose a small open pool at centre. A small creek appears to drain area to north. One of 6 known sites for *Habenaria leucophaea*. Forested slopes and two partly wooded drumlins buffer fen from adjacent farmland. Flooding is apparent on 1978 air photos. A candidate nature reserve.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy,1976; Sensitive Areas Report, 1975

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Harrison Lake and Fen	41A/7	080080

BRIEF DESCRIPTION This 150 ha site on till moraine encompasses Harrison Lake and a long depression to the east, filled with open fen. An extensive floating mat dominated by sedges (*Carex, Cladium)* surrounds 3 small open pools. It has scattered sphagnum hummocks with leatherleaf, small larch & cedar, & an occasional marshy section. Deciduous and mixed upland forests border the fen. An abandoned corduroy road crosses the fen at its south end. Adjoins Kinghurst Forest, another candidate nature reserve.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Grey ESA, 1978; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay, Mackay 28 Aug. 1980			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Negro Lakes	41A/7	120095

BRIEF DESCRIPTION Mainly on till moraine, this 450 ha site contains at least 7 small kettle lakes.Several display extensive marshy shorelines, a feature not found at other sites,except Kinghurst West Lowland/Upland. The lake at UTM 122045 has zones of: 1) wet cedar, 2) bulrush-sedge meadow marsh, 3)shallow bulrush marsh. Young upland forest(aspen-white birch-maple) on Pike Lake loam slopes surrounds the lakes. In the south, swamps persist along the Styx River. Several cottages built on the larger lakes. Three rough roads provide access into cottages.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Grey ESA,1978;Sensitive Areas Report, 1975; Cuddy, 1976; Gillespie and Richards, 1954.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay Mackay,28 Aug.1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	McClean Lake	41A/2	095980

BRIEF DESCRIPTION This complex of wetlands along a tributary of the Saugeen River and a kettle lake (McClean Lake) lies on a spillway edged by 3 drumlins, 8 km NNW of Durham.About 190 ha. Of special interest, are streamside wet graminoid meadows, which fill 2 kettle-shaped depressions. This is the only site for such a feature in 6-5.As well,yellow birch-black ash-red maple-trembling aspen lowlands line stream. Parts of drumlins are wooded with maple,beech and black cherry. Parts of upland forest are selectively logged and grazed. Three recreational homes along road on west side.

SOURCES Lindsay, 1980, Air Photo Interpretation;IBP,1972; Cuddy, 1976; Sensitive Areas Report, 1975.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay,Terpstra 18 Dec.80			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Moss Lake	41A/2	290935

BRIEF DESCRIPTION A small kettle lake encircled by lowland and upland forest,in a depression on kame moraine.Just south of Priceville. Vegetation consists of: 1)beech-maple-black cherry upland (60 ha), 2) yellow birch-maple-balsam fir-ash lowland (60 ha), 3)treed bog lake border of larch - black spruce - cedar - red maple - leatherleaf - labrador tea-spaghnum (1.5 ha), 4) open water of lake(3 ha)and 5) old fields. A representative,high quality, kame & kettle complex of about 120 ha in size. *Calopogon pulchellus*, and *Habenaria blephariglottis* reported.

SOURCES Lindsay, 1980; Air photo interpretation; IBP, 1972; South Grey ESA,1978;Sensitive Areas Report, 1975.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

SITE DISTRICT 6-5: HORSESHOE MORAINES - Wetlands (mainly Kettles)
with Upland Forests

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Mount Forest Bog	40P/15	175655

BRIEF DESCRIPTION A high quality, open fen, bog and swamp complex on spillway and kame deposits, 5 km SW of Mount Forest. About 70 ha. In a large depression, with apparently no drainage out, zones of open fen, semi-open tamarack shrub bog, tamarack forest, mixed swamp, scrub swamp, marsh and a narrow fringe of upland forest enclose a small open pool. The kame (in SE) holds 2 small marshy kettles. Significant plants and breeding birds. Located between two railway lines.

SOURCES Lindsay, 1980, Air Photo Interpretation; North Wellington ESA, 1977; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	McDonald Lake	41A/2	045975

BRIEF DESCRIPTION McDonald Lake is a kettle lake on spillway deposits located 12 km NW of Durham. About 140 ha. A bog border extends 30 to 160m out onto lake along its north & east shoreline. *Arethusa and Pogonia* reported. There is another small bog SW of lake and two marshy kettles to east. Deciduous forest grows on drumlin at east boundary. The lake may drain into Styx River, via a small stream. The north west and south shorelines are poorly buffered from adjacent farm fields.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Grey ESA, 1978; Sensitive Areas Report, 1975; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Pike Lake	40P/15	155675

BRIEF DESCRIPTION This 120 ha area exhibits rolling kame & kettle terrain, wooded with hardwood & mixed forest in south. Small kettle ponds fringed with willow-dogwood thickets add variety. Of special note is a mature stand of hemlock, white pine and beech along the south shoreline. Breeding Pied-billed Grebe, Wood Duck & Hooded Merganser are reported. The north part of the lake lies on spillway and is developed.6 km W. of Mount Forest

SOURCES Lindsay, 1980, Air Photo Interpretation; IBP, 1972; North Wellington ESA, 1977; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

SITE DISTRICT 6-5: HORSESHOE MORAINES - Wetlands (mainly Kettles)
with Upland Forest

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Habermehl Lake	41A/3	975955

BRIEF DESCRIPTION A small forest (70 ha) on spillway deposits at the north side of Habermehl Lake. A source area for Habermehl Creek which feeds into the Saugeen River. 7 km N of Hanover. Vegetation includes cedar-black ash-yellow birch, mature swamp forest, maple-beech-ash-hemlock upland forest and pond fringe marsh. Waldron (IBP) noted that the swamp forest was one of the finest examples he'd seen in Southern Ontario. Cottage development.

SOURCES Lindsay, 1980, Air Photo Interpretation; IBP, 1972; Sensitive Areas Report, 1975.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Westfall's Lake	41A/3 also on 41A/2	000920

BRIEF DESCRIPTION
Three small, undeveloped kettle lakes are situated on spillway deposits. A 50 ha area. The larger lake exhibits a shoreline zonation of floating fen mat surrounded by lowland forest. The two southern lakes have marshy shorelines. These lakes drain into the Saugeen River, east of Hanover. The site is 4 km NNE of Hanover.

SOURCES Lindsay, 1980, Air Photo Interpretation; Sensitive Areas Report, 1975; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 6-5: HORSESHOE MORAINES - River Valleys

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Rocky Saugeen River	Markdale	41A/7 also on 41A/2	170000

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. – MAX.
Grey	44 ° 15 ' N	80 ° 47 ' W	ca. 1050 ft. - 1450 ft.

LOCALITY 14 km stretch along river between Traverston and Aberdeen

TOWNSHIP	LOTS	CONCESSIONS
Bentinck Glenelg		

AREA acres ha

OWNERSHIP

ADMINISTRATION

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5

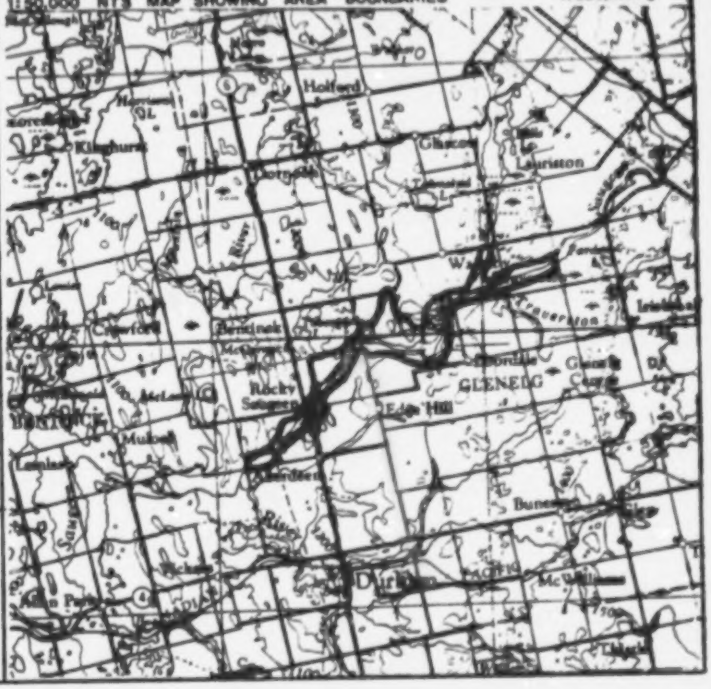
MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	Saugeen

AERIAL PHOTOGRAPHS

BASE MAP: 442804, 443803, 443804

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	90	4412	25, 26
1966	90	4411	196 -202
1966	102	4410	160 -163
1966	102	4409	30 -31

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000 ✓



PHYSICAL AND BIOLOGICAL FEATURES

An extensive natural corridor remains along the Rocky Saugeen, near its headwaters. This 14 km section along the river, stretching from near Traverston in the east to Aberdeen on the west, features steep rugged valley walls with limestone outcrops along both banks. Limestone exposures are prominent near Hayward Falls (41A/2) and the confluence with Black's Creek (41A/7), where several water spouts also occur. Chapman and Putnam (1972) map the Rocky Saugeen as a spillway channel running through a region of kame moraine and drumlinized till plain.

Associated with the river valley are maple - beech upland forests, maple - basswood forests on gradual slopes, cedar - hemlock stands and regenerating old fields. The mixed slope and lowland forests of the valley are characterized by cedar, hemlock, balsam fir and yellow birch. Significant species reported from its limestone habitats are *Carex hitchcockiana*, green spleenwort *(Asplenium viride)*, purple cliffbrake *(Pellaea atropurpurea)*, slender cliffbrake *(Cryptogramma stelleri)*, walking fern *(Camptosorus rhizophyllus)*, hart's-tongue fern *(Phyllitis scolopendrium)*, northern holly fern *(Polystichum lonchitis)* and narrow-leaved spleenwort *(Athyrium pycnocarpon)*. (Note that it is unlikely that *Pellaea atropurpurea* occurs given its published distribution (Soper, 1963).)

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Lindsay, 1980, Air Photo Interpretation; Brief field visit, 28 August 1980; South Grey ESA, 1978; Sensitive Areas Report, 1975; Cuddy, 1976; Soper, 1963.

EVALUATION AND PRIORITIES

An extensive, natural corridor along a rugged, steep-walled river valley. Features limestone bedrock exposures.

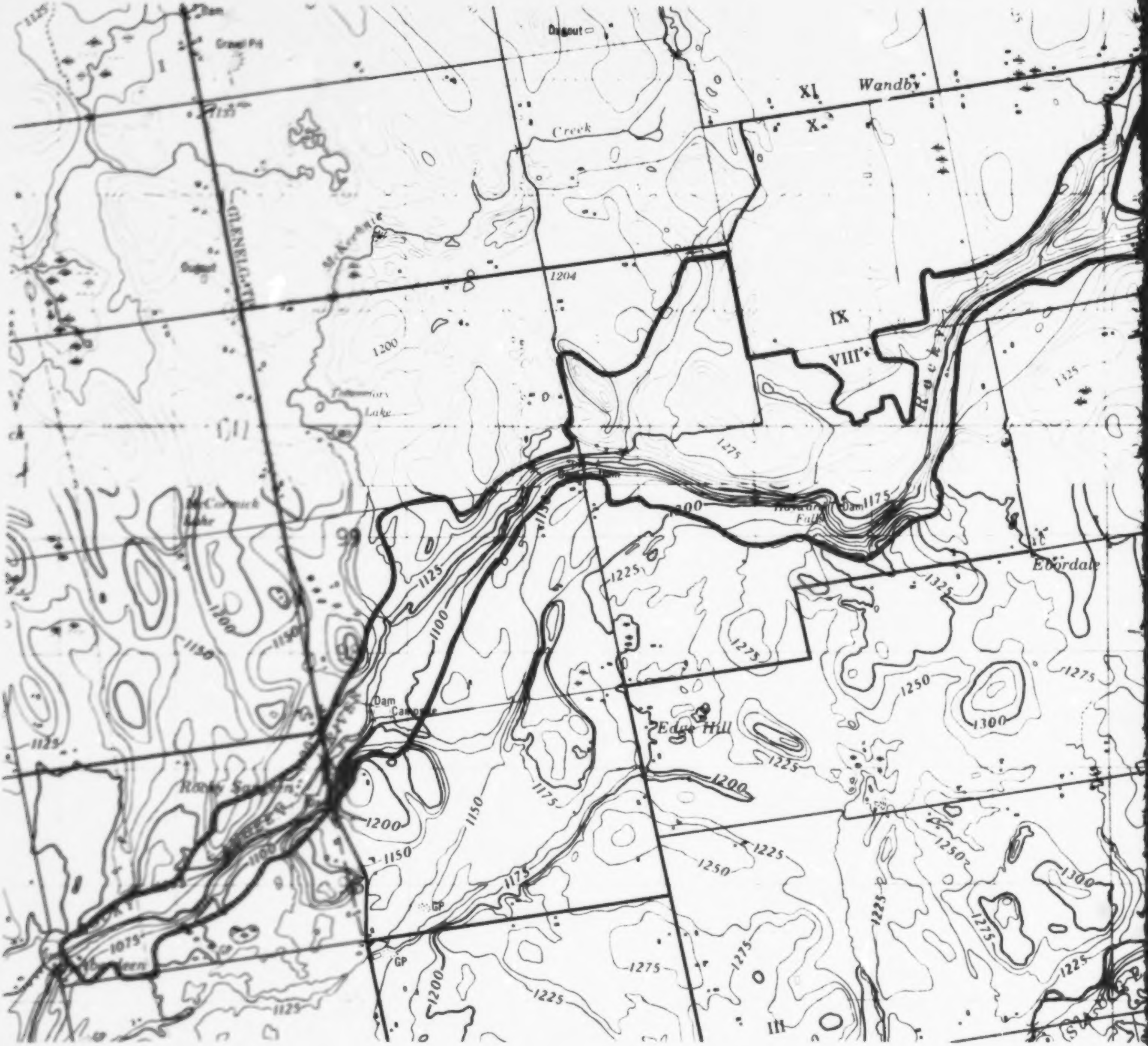
DATE COMPILED	COMPILER
28 November 1980	K. M. Lindsay 59

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

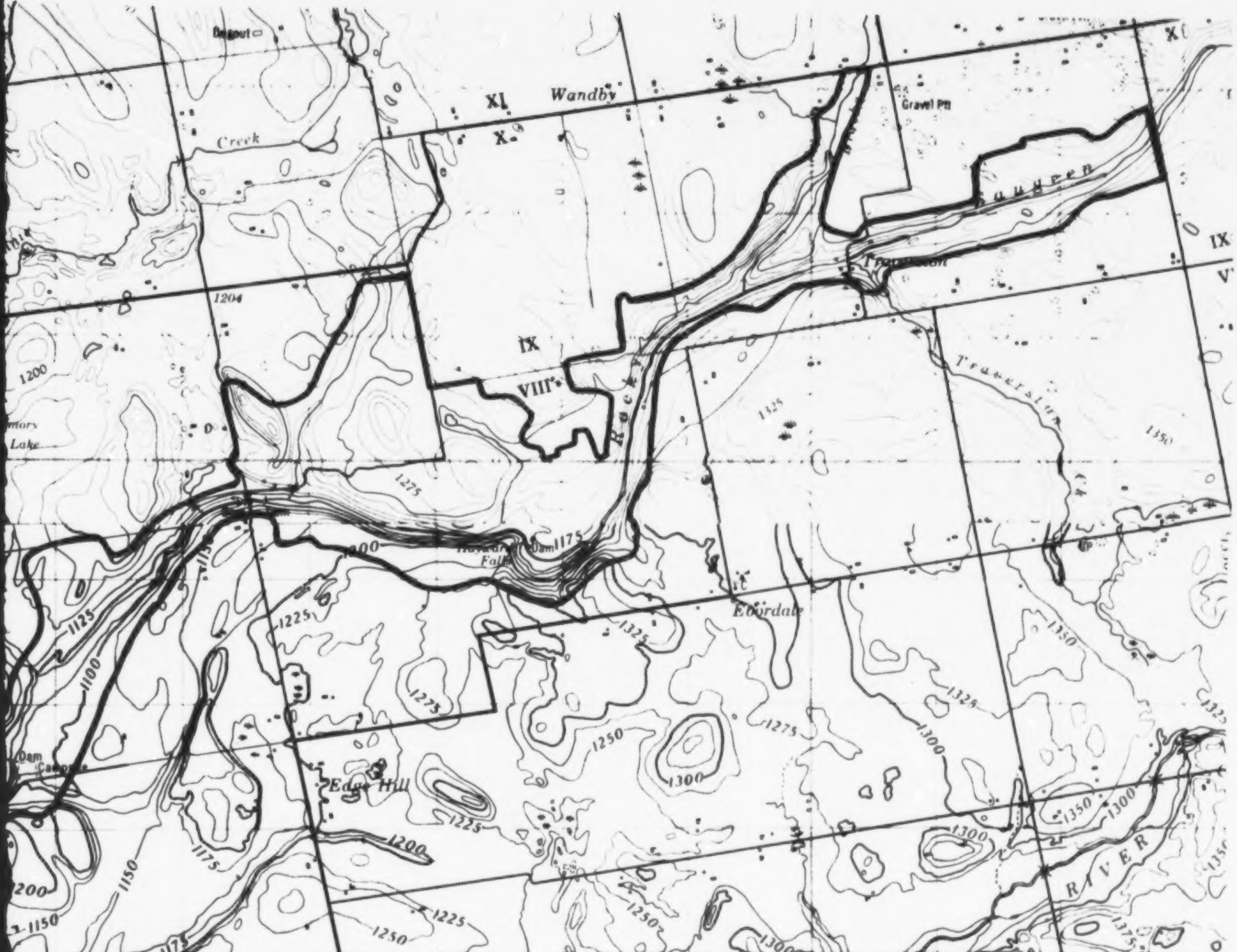
The Rocky Saugeen is clear and fast-flowing. Impacts include roads crossing the river, alteration in river flow due to construction of dams used to power grist and sawmills, selective cutting and some cattle trampling and grazing.

Despite these impacts, the Rocky Saugeen River is exceptional in Site District 6-5. Steep-walled river valleys incised in bedrock are not common in the site district. The Feversham Gorge (41A/8 490080) in the Horseshoe Moraines and Elora Gorge (40P/9 445335) in the Guelph Drumlin Field are similar features. Rocky Saugeen was selected as a candidate nature reserve because it is a larger, high quality, continuous corridor with a greater diversity of habitats, for instance, upland forests adjacent to the valley slopes. Further inventory work is suggested.

Rocky Saugeen River 41A/7 170000



ver 41A/7 170000



SITE DISTRICT 6-5: HORSESHOE MORAINES - River Headwaters, Lowlands on Spillway

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Lily Oak Forests	Markdale	41A/7	235195

COUNTY, DISTRICT or REGIONAL MUNICIPALITY Grey	**LAT.** 44 ° 26 ' N	**LONG.** 80 ° 42 ' W	**ALT. MIN. MAX.** ca. 1250 ft. - 1350 ft.

LOCALITY
North of Lily Oak

TOWNSHIP	LOTS	CONCESSIONS
Holland		

AREA
ca. 1360 acres ca. 550 ha

OWNERSHIP

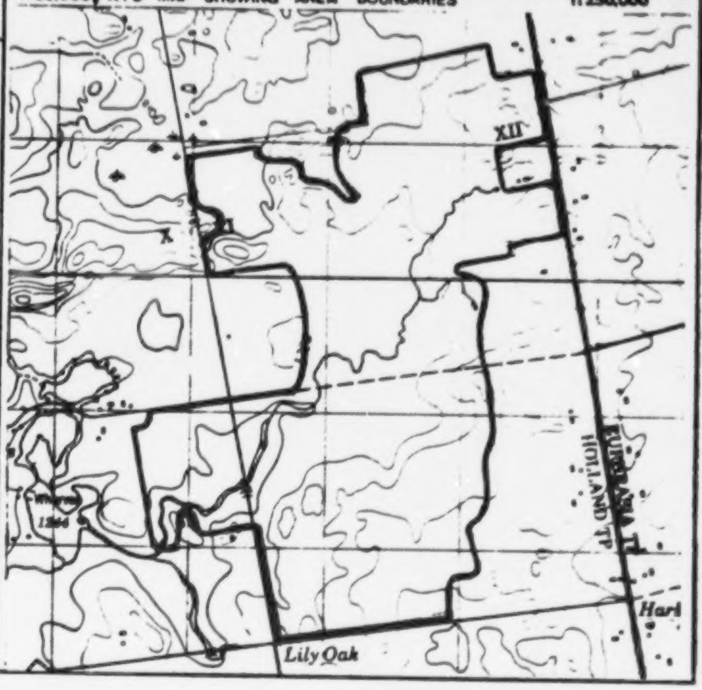
ADMINISTRATION

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Owen Sound	Saugeen

AERIAL PHOTOGRAPHS BASE MAP: 444803

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	93	4418	141-142
1966		4417	

1:50,000 / NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This large headwater tract (about 550 ha in extent) lies north of Lily Oak and east of the Robson Lakes candidate nature reserve (41A/7 205200). The headwaters of Hamilton Creek, which flows into the North Saugeen River, rise in the area. Extensive mixed and coniferous lowlands of cedar, balsam, fir and spruce characterize the spillway deposits along the creek. To the north, till moraine slopes support upland hardwoods, which have some of the features found at Robson Lakes. Forest, plantations and old fields are found on till plain in the south.

Lily Oak Forests was selected as a candidate nature reserve, because of its excellent diversity of upland and lowland habitats and landform types, its headwater location, and its large size. Further inventory of the physical and biological features is required. The Kinghurst West Lowland/Upland (41A/7 040060) is another candidate nature reserve which contains lowland forest on spillway deposits, in a headwater location.

DATA SHEETS ATTACHED

- PHYSICAL DESCRIPTION ☐
- VEGETATION SUMMARY ☐
- EVALUATION SHEET ☐
- COMMUNITY DESCRS. ☐
- COMMUNITY COMP. LISTS ☐
- SUMMARY SPECIES LISTS ☐
- PHYSICAL FEATURES MAP ☐
- VEGETATION MAP ☐
- BIBLIOGRAPHY ☐
- PHOTOGRAPHS ☐

MAJOR INFORMATION SOURCES

Lindsay, 1980, Air Photo Interpretation
Cuddy, 1976

EVALUATION AND PRIORITIES

A headwater complex featuring forested till moraine uplands and spillway lowlands.

DATE COMPILED	COMPILER
28 November 1980	K. M. Lindsay

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 6-5: HORSESHOE MORAINES - Rivers (Valley and Headwater sections, Lowlands on Spillways)

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Rocky Saugeen River	41A/7	170000

BRIEF DESCRIPTION This 14 km section along the Rocky Saugeen, near its headwaters, features steep valley walls with limestone outcrops, waterfalls and waterspouts. An extensive natural corridor of upland forest & wooded valley slopes & lowlands remains between Traverston on east and Aberdeen on west. Significant plants are associated with the limestone habitats along valley. An excellent trout stream. A candidate nature reserve.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Grey ESA, 1978;Sensitive Areas Report,1975;Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay Mackay, 28 Aug. 1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Feversham Gorge	41A/8	490080

BRIEF DESCRIPTION A steep-walled, cedar-lined gorge on the Beaver River west of Feversham. Located close to the headwaters of the Beaver. There are limestone cliffs and outcrops along the gorge. Significant species reported are *Asplenium viride*, *Phyllitis scolopendium* and *Dryopteris filix-mas*.The 2 km of gorge west of Feversham seems to be the best section. Lacks buffering. Frequent garbage.

SOURCES Cuddy, 25 July 1976, Brief field notes; Sensitive Areas Report,1972, MNR

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay,Mackay 28 Aug.1980			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Lily Oak Forest	41A/7	235195

BRIEF DESCRIPTION A large headwater area, lying north of Lily Oak and east of the Robson Lakes candidate nature reserve. The headwaters of Hamilton Creek,which flows into the North Saugeen River, rise in the area. About 550 ha in extent.Includes extensive mixed and coniferous lowland forest on spillway deposits along creek,upland forest on till moraine to north and forested till plain to south. About 10% is plantation & old field.A diverse candidate nature reserve.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 6-5: HORSESHOE MORAINES- Rivers (Valley and Headwater sections, Lowlands on Spillways)

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Turner Lake Swamp	41A/2	365925

BRIEF DESCRIPTION Located SE of Turner Lake, this area features a large catchment swamp along a meandering section of the Saugeen River. About 450 ha in extent. On muck, over spillway deposits. The mixed lowland forests are composed of birch-black ash-cedar-balsam fir and aspen. A small amount of maple-beech forest occurs on a slope in the southeast corner. Drainage ditch construction may have effected the water levels of this site.

SOURCES Lindsay, 1980, Air Photo Interpretation, IBP; 1971; South Grey ESA, 1978; Cuddy, 1976; Sensitive Areas Rpt. 1975

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Orchard Valley Forest	41A/2	130795

BRIEF DESCRIPTION A valley section along the Beatty Saugeen River, 3 km west of Orchardville, cut into spillway and kame deposits. Lowland forest of cedar and black ash dominates the broad floodplain. Upland forest of maple, beech and hemlock covers the slopes of a kame hill in the centre of the area. About 240 ha in size. A small part of the area is old fields.

SOURCES Lindsay, 1980. Air photo interpretation; IBP, 1972; Cuddy, 1976; Sensitive Areas Report, 1975.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Beatty Saugeen Swamp	41A/2	090850

BRIEF DESCRIPTION A large lowland forest (about 200 ha in size) along a meandering section of the Beatty Saugeen River. On spillway deposits, approximately 8 km southwest of Durham. The mixed forest associations are composed of cedar-aspen-balsam fir and black ash.

SOURCES Lindsay, 1980, Air Photo Interpretation; IBP, 1972; Cuddy, 1976; Sensitive Areas Report, 1975

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 6-5: TEESWATER DRUMLIN FIELD - Drumlinized Till Plain

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Molesworth Woods	Wingham	40P/14	990463

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. – MAX.
Perth	43 ° 47 ' N	81 ° 01 ' W	ca. 1225 ft. - 1250 ft.

LOCALITY 5 km east of Molesworth

TOWNSHIP Wallace **LOTS** **CONCESSIONS**

AREA ca. 135 **acres** ca. 55 **ha**

OWNERSHIP

ADMINISTRATION

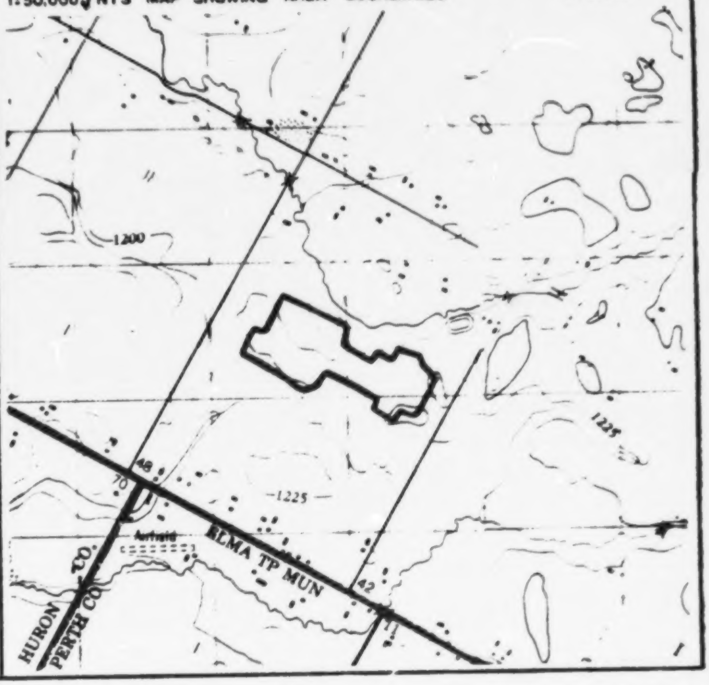
FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Wingham	Maitland

AERIAL PHOTOGRAPHS **BASE MAP:**

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	84	4332	34-36

1:50,000 ✓ NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

Molesworth Woods is a small woodlot on gently rolling, stony clay till plain, just south of the Maitland River (about 55 ha in size). Upland portions of the woodlot are forested with sugar maple, beech and black cherry. Moist hollows hold deciduous swamp composed of silver maple, yellow birch and sugar maple. The two associations occur in roughly equal proportions. Past disturbances to the woodlot are selective logging and cattle grazing.

Waldron (IBP, 1972), reported that this was one of the best woodlots in Perth County. Mature or relatively mature upland woodlots are scarce on the till plains of the Teeswater Drumlin Field and the Dundalk Till Plain Physiographic Regions, yet till plains occupy roughly 40 to 60% of these regions. Molesworth Woods appears to be one of the best remaining sites for upland forest on till plain, in terms of both size and quality. A further search for sites representing this feature in the Dundalk Till Plain and Teeswater Drumlin field physiographic regions is recommended.

DATA SHEETS ATTACHED

- PHYSICAL DESCRIPTION ☐
- VEGETATION SUMMARY ☐
- EVALUATION SHEET ☐
- COMMUNITY DESCRS. ☐
- COMMUNITY COMP. LISTS ☐
- SUMMARY SPECIES LISTS ☐
- PHYSICAL FEATURES MAP ☐
- VEGETATION MAP ☐
- BIBLIOGRAPHY ☐
- PHOTOGRAPHS ☐

MAJOR INFORMATION SOURCES

Lindsay, 1980, Air Photo Interpretation, Brief field visit, 18 December, 1980; IBP, 1972; Cuddy, 1976;
Sensitive Areas Report, 1975

EVALUATION AND PRIORITIES

One of the best remaining sites illustrating upland forests on till plain in Site District 6-5.

DATE COMPILED	COMPILER
28 November 1980	K. M. Lindsay 67

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 6-5: TEESWATER DRUMLIN FIELD-Drumlinized Till Plain, Muck

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Molesworth Woods	40P/14	990463

BRIEF DESCRIPTION Situated about 5 km east of Molesworth. This small woodlot (55 ha) on clay till plain is made up of two communities-maple-beech-black cherry upland and silver maple-yellow birch-sugar maple lowland. Grazed and selectively logged in past but now maintained with fencing. Waldron (IBP) reported that this was one of the best woodlots in Perth County. A candidate nature reserve.

SOURCES Lindsay, 1980, Air Photo Interpretation; IBP, 1972; Sensitive Areas Report; 1975; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay, Terpstra, 18 Dec.80			

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Newbridge North	40P/15	025623

BRIEF DESCRIPTION
This large muck deposit on till plain supports an extensive lowland forest. Bordered by drumlins on south. A forested esker traverses the northeast part of the area. About 240 ha in extent. 3 km north of Newbridge.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976, North Wellington ESA, 1977, p. 24

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Wroxeter Swamp	40P/14	860550

BRIEF DESCRIPTION
Located 2 km southwest of Wroxeter. An extensive lowland swamp on muck deposits, separated by many drumlins. About 400 ha.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

DISTRICT 6-5: TEESWATER DRUMLIN FIELD - Drumlinized Till Plain, Muck

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Fultons Swamp	40P/15	040633

BRIEF DESCRIPTION

Part of an extensive lowland swamp forest, composed of mature red and silver maple stands, on a muck deposit on till plain. The area outlined (about 190 ha) appeared least disturbed on air photos. 2.5 km south of Fultons.

SOURCES Lindsay, 1980, Air Photo Interpretation; North Wellington ESA, 1977; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

SITE DISTRICT 6-5: TEESWATER DRUMLIN FIELD - Kame Moraine

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEE

NAME South Saugeen River	**MAP NAME** Durham	**MAP NUMBER** 41A/ 2 also on 40P/15	**UTM REF.** 090727

COUNTY, DISTRICT or REGIONAL MUNICIPALITY
Grey/North Wellington

LAT. 44 ° 01 ′N	**LONG.** 80 ° 53 ′W	**ALT.** **MIN.** **MAX.** ca. 1075 ft. - 1200 ft.

LOCALITY
12 km WNW of Mount Forest

TOWNSHIP	**LOTS**	**CONCESSIONS**
Minto		
Normanby		

AREA
ca. 1000 **acres** ca. 400 **ha**

OWNERSHIP

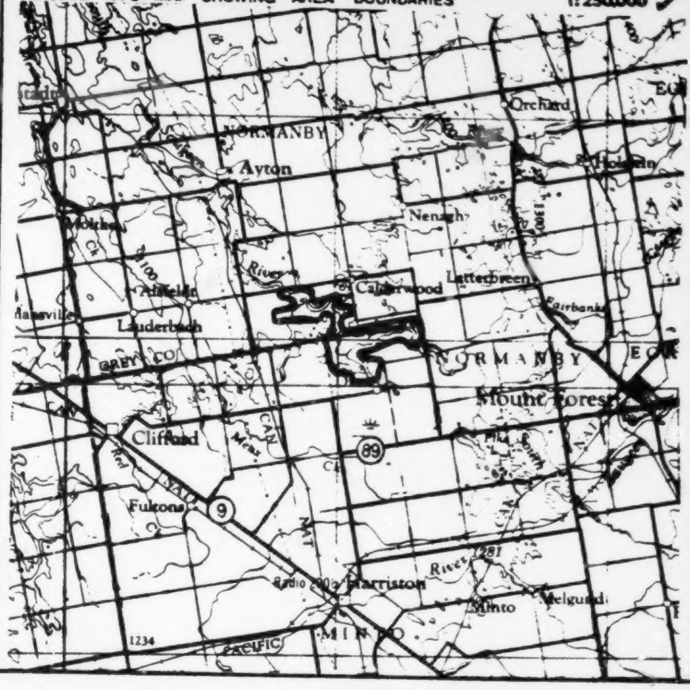
ADMINISTRATION

FOREST REGION AND DISTRICT L.1	**SITE REGION AND DISTRICT** 6-5
MNR REGION AND DISTRICT SW-Owen Sound	**CONSERVATION AUTHORITY** Saugeen

AERIAL PHOTOGRAPHS **BASE MAP:** 441804/438804

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966		4401	
1966	96	4341	152-156

1:50,000 NTS MAP SHOWING AREA BOUNDARIES **1:250,000** ✓



PHYSICAL AND BIOLOGICAL FEATURES

This 400 ha site along the South Saugeen River remains in a relatively natural state. I the south part, the river dissects kame moraine; in the north it apparently traverses till plain. Forest cover types comprise beech - maple upland, cedar - maple - hemlock and cedar - maple slopes, floodplain swamp of cedar, larch and balsam fir. A variety of habitats - meadows, marshes, old fields and stranded oxbow ponds - are found on the floodplain. Along this section of its course, the South Saugeen is relatively fast-flowing with clear waters. Significant plants and animals are reported. A Massasauga Rattler was sighted here in 1968 (by Craig Campbell) near the old bridge on the Normanby-Minto town line. If Massasauga's still inhabit the area, this is one of a very few inland locations in southern Ontario. Parts of uplands, slopes and floodplains within the boundary are scrubby, selectively logged or cleared land.

The South Saugeen River valley is the largest natural unit remaining on the Teeswater Drumlin Field. It contains a range of features, landforms and vegetation types. Good examples of valley rim, slope and floodplain forest on kame moraine (and till plain) are represented. Further inventory is recommended.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

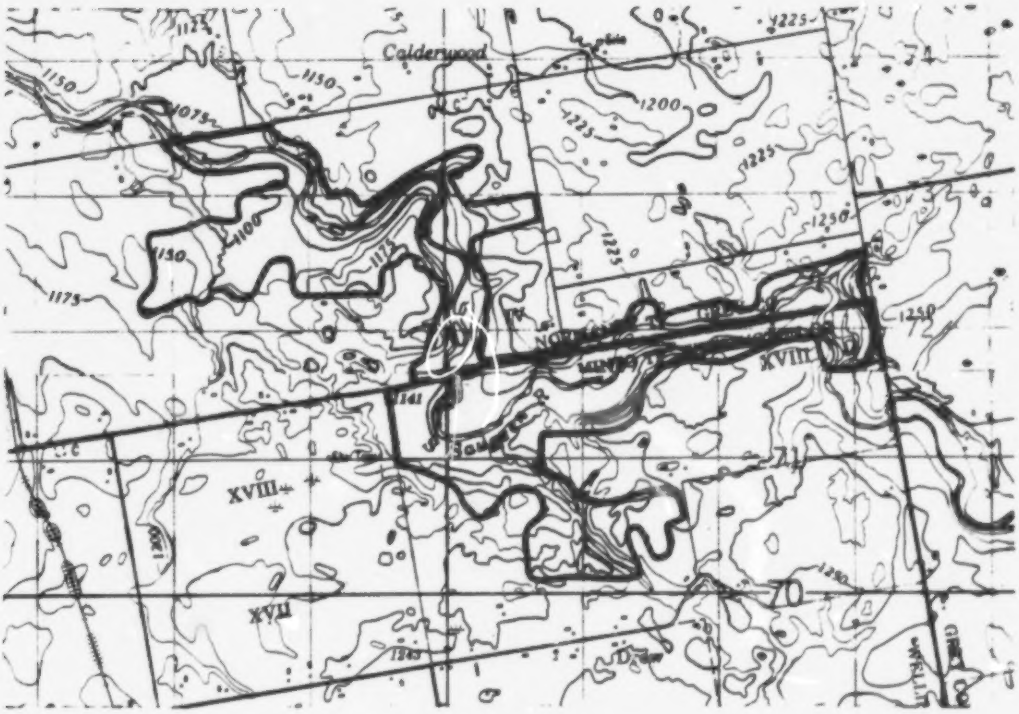
MAJOR INFORMATION SOURCES
Lindsay, 1980, Air Photo Interpretation, Brief field visit, 18 December, 1980; North Wellington ESA, 1977

EVALUATION AND PRIORITIES
A forested corridor of uplands, slopes and bottomlands on kame moraine deposits.

DATE COMPILED 28 November 1980	**COMPILER** K. M. Lindsay

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

South Saugeen River 41A/2 090727



SITE DISTRICT 6-5: TEESWATER DRUMLIN FIELD - Kame Moraine

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Drew Bog and Swamp	Palmerston	40P/15	110685

LAT.	LONG.	ALT. MIN.	MAX.
43 ° 59 'N	80 ° 52 'W	ca. 1250 ft.	

COUNTY, DISTRICT or REGIONAL MUNICIPALITY
Wellington

LOCALITY
6 km north of Harriston

TOWNSHIP / **LOTS** / **CONCESSIONS**
Minto

AREA
ca. 420 acres ca. 170 ha

OWNERSHIP

ADMINISTRATION

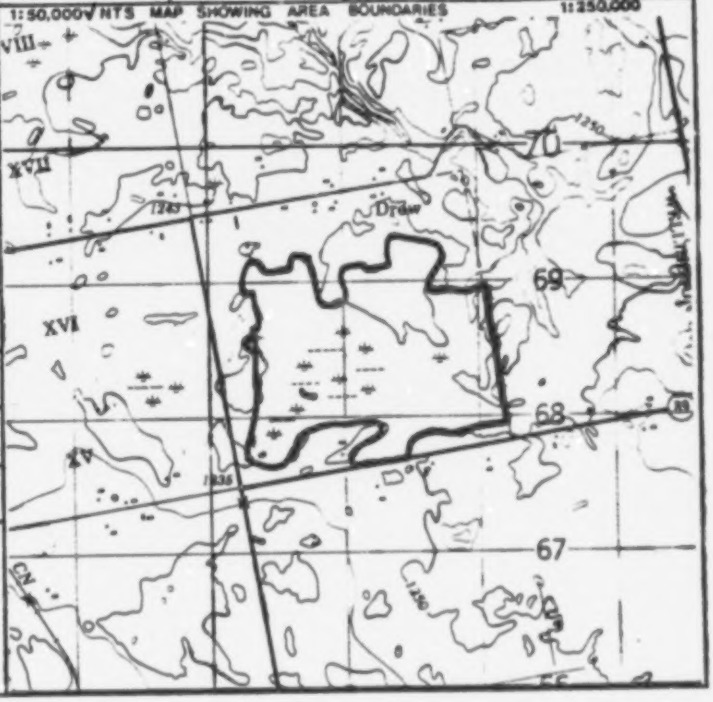
FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Wingham	Saugeen

AERIAL PHOTOGRAPHS BASE MAP: 438804

YEAR	ROLL	FLIGHT LINE	NUMBERS
1966	103	4340	111-113

1:50,000 ✓ NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This large wetland complex of about 170 ha fills a broad kettle depression on kame moraine. A large extent of open low shrub bog (30 ha) surrounds a small remnant kettle pond. The remainder of this bog-swamp complex is made up of treed bog, bordered by mixed and deciduous swamp (64 ha). Upland maple forests, some of which have been selectively cut and grazed, covers the kame ridges that edge the wetland (64 ha). This is a high quality and diverse wetland complex. The ESA report noted many unusual and rare plants and birds. Waldron (IBP, 1972) comments on water level changes in the bog (making it drier) that could possibly have been related to beaver activity in the swamp forest east of the bog.

Drew Bog and Swamp and the Lakelet Lake Bog (40P/14 960675) are the largest wetland/upland complexes on kame moraine in the Teeswater Drumlin Field. The open bog communities of both sites are similar in size and type (open bog mats, with small open water portions, infilling a kettle depression). Drew Bog and Swamp is recommended as a candidate nature reserve because of

1) its larger area (170 ha compared with 110 ha),
2) its open bog mat being slightly better buffering from adjacent farmland and roads,
3) the larger extent of upland forest adjoining the site (64 ha rather than 20 ha).

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES
Lindsay, 1980, Air Photo Interpretation
IBP, 1972;
Cuddy, 1976;
North Wellington ESA, 1977

EVALUATION AND PRIORITIES
The most extensive, best quality kettle bog and kame moraine upland complex in Site District 6-5.

DATE COMPILED	COMPILER
28 November 1980	K. M. Lindsay

However, both sites rank very closely.

Murray's Bog (40P/14 935680) is another good but small (90 ha) kettle bog and kame moraine on the Teeswater Drumlin Field. Moss Lake (41A/2 290935) in the Horseshoe Moraines Physiographic Region is a high quality site containing a typical small kettle lake illustrating some bog development and surrounded by lowland and upland kame moraine forests. Time limitations in 1980 did not allow for field checking. The current condition of these sites should be checked in the field.

In summary, Drew Bog and Swamp is considered the best kettle bog/kame moraine upland complex in Site District 6-5.

SITE DISTRICT 6-5: TEESWATER DRUMLIN FIELD - Kame Moraine

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	South Saugeen River	41A/2 Also on 40P/15	090727

BRIEF DESCRIPTION South Saugeen River contains good quality, valley rim, slope and floodplain sites as well as floodplain meadows, oxbows and old fields. The river dissects kame moraine in the south and, apparently, till moraine in north. Massasauga Rattler and other significant species reported 12 km WNW of Mount Forest. Extending over about 400 ha, this is the largest candidate nature reserve in the Teeswater Drumlin field.

SOURCES Lindsay, 1980, Air Photo Interpretation; North Wellington ESA, 1977.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Lindsay, Terpstra, 18 Dec.80			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Drew Bog and Swamp	40P/15	110685

BRIEF DESCRIPTION This large bog and swamp complex fills a broad depression on kame moraine 6 km north of Harriston. The habitats represented are a very small central open pool, open bog (34 ha), treed bog, mixed and deciduous swamp (64 ha) and sugar maple forest on kame ridges (64 ha). About 170 ha in extent. Waldron (IBP, 1972) commented on water level changes in bog. Should be examined in field. A candidate nature reserve. Considered the best kettle bog/kame upland complex in Site District 6-5.

SOURCES Lindsay, 1980, Air Photo Interpretation; IBP, 1972; Cuddy, 1976; North Wellington ESA, 1977.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Lakelet Lake Bog	40P/14	960675

BRIEF DESCRIPTION The Lakelet Bog consists of 110 ha of bog, swamp and upland forest on kame moraine, just east of Lakelet Lake and 7 km west of Clifford. It features an extensive open bog (30 ha) floating and filling in around a small lake, Blind Lake. A narrow fringe of wet coniferous and mixed forest separates the open bog from adjacent farmland. Upland forest stands (20 ha) of maple, cherry, pine and birch grow on the kame hills north of the bog. Trailer camp on knoll west of bog. Concession road skirts south end.

SOURCES Lindsay, 1980, Air Photo Interpretation; IBP, 1971; Cuddy, 1976; Sensitive Areas Report, 1975.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Murray's Bog	40P/14	935680

BRIEF DESCRIPTION

This kame moraine depression holds a bog and swamp complex, surrounded by upland forest. The open and treed bog in the centre of the site is bounded by a broad belt of deciduous forest (lowland and upland). A number of significant species are reported,for eg.*Habenaria blephariglottis*, *Pogonia*, *Xyris*, *Utricularia cornuta*. Approximately 90 ha in all. Located 2 km east of McIntosh, just west of Lakelet Lake.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976; Sensitive Areas Report; 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Huntingfield Agreement Forest	40P/14	920710

BRIEF DESCRIPTION

Located 2 km north of McIntosh, on gently and sharply dissected kame moraine. This ca. 160 ha area contains maple-beech-hemlock stands (74 ha) on its kame ridges and cedar-ash-yellow birch swamp in low-lying depressions (36 ha). Shrub thickets and a muck shoreline fringe an open pond. A representative complex,however, the upland forests have been heavily cutover. Many access roads and trails dissect unit. A section of upland woods east of the concession road appears to be in better condition.

SOURCES IBP, 1971; Cuddy, 1976; Sensitive Areas Report,1975, Lindsay, 1980, Air Photo Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Drew Swamp West	40P/15	095683

BRIEF DESCRIPTION

Drew Swamp West is a large lowland swamp complex lying in a broad depression on kame moraine. About 70 ha in extent. Immediately west of the Drew Swamp and Bog candidate nature reserve (110685) and 6 km north of Harriston.

SOURCES Lindsay, 1980; Air Photo Interpretation; North Wellington ESA, 1977.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 6-5: TEESWATER DRUMLIN FIELD - Outwash and Spillways; Eskers

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Newbridge East	40P/15	030550

BRIEF DESCRIPTION Newbridge East is a 70 ha woodlot enclosed by a bend along the Maitland River, just east of Newbridge. It is composed of good quality, upland and lowland forests and stream habitats. Spillway deposits underlie south part; till plain and part of a cleared drumlin are found in the north. Should be examined in the field.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Bog North of Gorrie	40P/14	904625

BRIEF DESCRIPTION This small(bog about 50 ha in size) is on spillway deposits, in a depression surrounded by drumlins, 5 km north of Gorrie. The site exhibits an excellent zonation of deciduous and mixed swamp around an elliptic-shaped centre of rather open,treed bog. A high quality, interesting area, but smaller than other bog complexes on the Teeswater Drumlin Field. A gravel road crosses the western edge of depression.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy,1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Molesworth Esker	40P/14	915470

BRIEF DESCRIPTION Molesworth Esker is a small forested esker and swamp complex located 3 km west of Molesworth.The esker runs across till plain. About 60 ha in size. A significant site but larger forested esker and swamp complexes remain in the Dundalk Till Plain Physiographic Region.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

SITE DISTRICT 6-5: ARRAN DRUMLIN FIELD - Drumlinized Till Plain

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Skipness Drumlins and Wetlands	Wiarton	41A/11	850355

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. MAX.
Just east of Bruce	44 ° 34 ′N	81 ° 11 ′W	ca. 725 ft. - 850 ft.

LOCALITY Skipness

TOWNSHIP **LOTS** **CONCESSIONS**
Amabel

AREA ca. 300 **acres** ca. 120 **ha**

OWNERSHIP

ADMINISTRATION

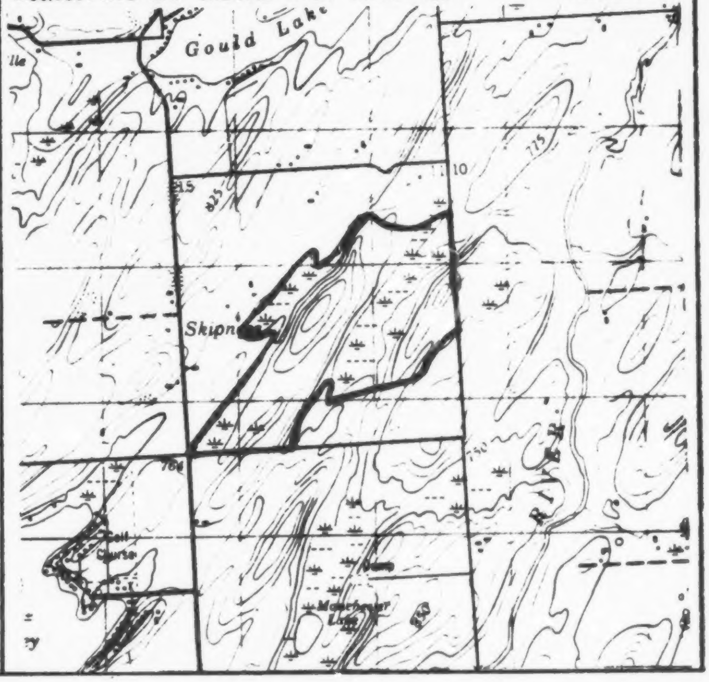
FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
L.1	6-5 and 6-2

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Owen Sound	Sauble

AERIAL PHOTOGRAPHS **BASE MAP:** 445811

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	280	4440	84-86

1:50,000 ✓ NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

Two long linear forested drumlins separated by a narrow wetland characterize this ca. 120 ha site east of Skipness. The cigar-shaped drumlins are mostly dominated by sugar maple forest, except for a few, small fields. Wetlands lie on both sides of the larger drumlin. Lowland forests, a beaver flood and shrub carr line the course of the small stream that traverses the main interdrumlin wetland.

Skipness Drumlins and Wetlands is the only typical forested drumlin and wetland complex left on the Arran Drumlin Field in Site District 6-5. Two other, predominantly wetland, sites also contain drumlins. A small forested drumlin is part of Arran Lake South (41A/6 790230) and forested drumlin slopes occur in Arran Lake North (41A/11 810275). Forested drumlin and wetland complexes are scarce in this site district and in southern Ontario as a whole.

This candidate nature reserve should be examined in field.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION ☐
VEGETATION SUMMARY ☐
EVALUATION SHEET ☐
COMMUNITY DESCRS. ☐
COMMUNITY COMP. LISTS ☐
SUMMARY SPECIES LISTS ☐
PHYSICAL FEATURES MAP ☐
VEGETATION MAP ☐
BIBLIOGRAPHY ☐
PHOTOGRAPHS ☐

MAJOR INFORMATION SOURCES

Lindsay, 1980, Air Photo Interpretation
Cuddy, 1976

EVALUATION AND PRIORITIES

The only typical example of forested drumlins and interdrumlin wetlands left on Arran Drumlin Field in Site District 6-5.

DATE COMPILED	COMPILER
2 December 1980	K. M. Lindsay

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Skipness Drumlins and Wetlands	41A/11	850355

BRIEF DESCRIPTION Two long linear forested drumlins separated by a narrow wetland characterize this ca. 120 ha site east of Skipness. The cigar-shaped drumlins are mostly dominated by sugar maple forest, except for a few, small fields. Wetlands lie on both sides of the larger drumlin. Lowland forests, a beaver-flood and shrub carr line the course of the small stream that traverses the main interdrumlin wetland. This candidate nature reserve is the only typical forested drumlin and wetland complex left on the Arran Drumlin Field in Site District 6-5.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Arran Lake South	41A/6	790230

BRIEF DESCRIPTION This large wetland complex (approx. 250 ha) at the south end of Arran Lake occupies muck deposits in an interdrumlin depression. Mixed swamp, traversed by a small stream, predominates. Much of this lowland has been flooded by beaver. A small drumlin, forested with younger deciduous cover, rises above the wetlands on the east side. A shrubby-marshy floating mat lake border has developed next to the open water of Arran Lake. The south part of Arran Lake is free of cottages.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Bruce ESA, 1980; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Arran Lake North	41A/11	810275

BRIEF DESCRIPTION This 450 ha wetland complex at the north end of Arran Lake is comprised of an extensive lowland forest on muck deposits along a tributary of the Sauble River, a large zone of marsh and shrub carr at the stream outlet from Arran Lake and the forested portions of several drumlin slopes. The vegetation associations reported by the ESA study are sugar maple, beech, white cedar, sugar maple and white cedar.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Bruce ESA, 1980; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

SITE DISTRICT 6-5: ARRAN DRUMLIN FIELD - Muck

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Allenford Swamp	41A/11	890310

BRIEF DESCRIPTION

A large muck depression, with no drainage out, holds this high quality, extensive swamp of about 450 ha. Marsh and open bog have filled in much of the shallow lake which lies at the centre of the site, 2 km east of Allenford. A railway line runs through area.

SOURCES Lindsay, 1980, Air Photo Interpretation; South Bruce ESA, 1980.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Elsinore Bog Complex	41A/11	813295

BRIEF DESCRIPTION

Immediately east of Elsinore. Zones of mixed treed bog and open bog encircle the open water of a small lake. This 40 ha, interdrumlin site has restricted drainage.

SOURCES Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Chesley Lake South Bog	41A/11	828307

BRIEF DESCRIPTION

A very small bog site about 20 ha composed of open and treed bog surrounded by a band of mixed swamp. Located 2 km south of Chesley Lake in an interdrumlin depression with no drainage out.

SOURCES

Lindsay, 1980, Air Photo Interpretation; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO M7A 1W3

1981

SITE DISTRICT 6-5: BIGHEAD VALLEY - Drumlinized Till Plain

LIFE SCIENCE INVENTORY CHECKLIST

from Significant Natural Areas Along Niagara Escarpment (1976) Also on 41A/10

NAME	MAP NAME	MAP NUMBER	UTM REF.
McGill Lake	Markdale	41A/7	140260

LAT.	LONG.	ALT. MIN.	MAX.
44 ° 29 ′N	80 ° 49 ′W	ca. 1025 ft.	-1150 ft.

COUNTY
Grey

TOWNSHIP
Sydenham; Holland

LOTS	CONCESSIONS
1-6	VII
1-6	VIII
Holland; 1	VI

AREA
ca. 1200 acres ca. 480 ha

OWNERSHIP
private/Cons. Auth.

ADMINISTRATION
private/Cons. Auth.

SITE REGION
6E

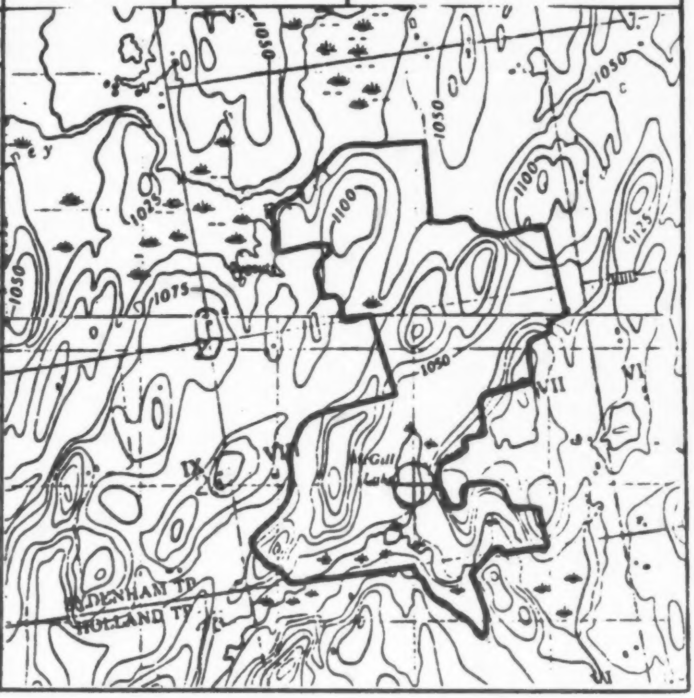
FOREST REGION AND DISTRICT
L-1

MNR REGION AND DISTRICT
SW - Owen Sound

CONSERVATION AUTHORITY
North Grey

AERIAL PHOTOGRAPHS
BASE MAP: 444804

YEAR	ROLL	FLIGHT LINE	NUMBERS
66	93	4420	34
66	92	4421	124-126
66	93	4422	35, 36



PHYSICAL AND BIOLOGICAL FEATURES

McGill Lake is situated on a drumlinized till plain at the western edge of the Bighead Valley.

An oval-shaped lake and associated wetlands are located in a relatively wide depression between several drumlins. A source stream rises in a narrow valley to the southeast; a slow-flowing stream exits to the southwest. Forested drumlins surround the west and north sides of the lake. Soils consist of moderately stony loam derived from dolomitic till materials. Organic soil deposits are found in the depressional wetland areas.

Wet mesic to wet swamp forests occur in the depression about McGill Lake; deciduous swamp forests and open successional swamp forests which show signs of periodic flooding. Shrub thickets (willow, dogwood, alder) occur in wet to saturated situations at the waters edge. A floating border is developed around the lake; it consists in part of a floating shrub margin, Chamaedaphne-Vaccinium-Spaghnum-larch-cattail and a floating mat, Scirpus-Cladium. Southeast of the lake adjacent to the source stream, there are dry mesic to wet mesic forest associations on drumlin slopes (hemlock-maple-ironwood-cedar-beech,

cont.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	0	SUMMARY SPECIES LISTS	●
VEGETATION SUMMARY	●	PHYSICAL FEATURES MAP	0
EVALUATION SHEET	●	VEGETATION MAP	0
COMMUNITY DESCRS.	0	BIBLIOGRAPHY	
COMMUNITY COMP. LISTS		PHOTOGRAPHS	0

MAJOR INFORMATION SOURCES
Field Survey-K. Lindsay, 7, 8 Sept. 1975
Additional Sources (added by Lindsay, 1980)
Lindsay, 1980. Air Photo Interpretation.

EVALUATION AND PRIORITIES Candidate nature reserve. Forested drumlin slopes and associated wetlands on a drumlinized till plain. Best e.g. of vegetation related to this physiographic pattern in N.E.P.A.; upland forests disturbed.

DATE COMPILED	COMPILER
23 Jan. 1976	K. Lindsay

hemlock-yellow birch-red maple-basswood, cedar-hemlock, cedar-larch-spaghnum). A boggy opening occurs about a spring source in the valley. Young deciduous forests (maple-ash) are found on the drumlins north and west of the lake. Limestone boulders are frequent in one section (ca. UTM 142273) which has a rich ground flora typical of rocky upland sites in the Grey Seciton of the N.E.P.A.; species such as Phyllitis scolopendrium, Dryopteris goldiana, Athyrium pycnocarpon, A. thelypterioides, and Asarum canadense occur.

McGill Lake represents vegetation patterns related to the topography of a drumlinized till plain with deciduous and mixed forests occurring on dry mesic to mesic drumlin crests and slopes, and wetlands and water courses situated in the depressions between drumlins. A wide range of vegetation associations is found because of the topographic and microclimatic variation. The drumlin forests are variously disturbed by: clearcut logging, selective logging, management practices, and a minimal amount of grazing. Despite quite a high level of disturbance, these forests are significant - few forested drumlin and wetland complexes remain on the Bighead drumlin field. Most dry mesic to mesic sites on drumlin crests and slopes have been cleared for agriculture. This is the only example of this type of complex within the N.E.P.A. (A similar pattern occurs to the west at UTM 108265). This area is the headwater source for two branches of the Spey River.

A largish wetland area, the headwater source of one branch of the Spey River, occurs to the northwest of the candidate nature reserve area. A complex of shrub thickets, cattail marsh, tall grass marsh, etc. occupies the standing water of flooded swamp forests. At present the area is not recommended for inclusion in the candidate nature reserve, but the area is significant for headwater protection reasons.

COMMENTS ADDED BY LINDSAY, 1980

The McGill Lake candidate nature reserve offers the best representation of a forested drumlin and wetland complex in Site District 6-5. Spey River Headwaters (41A/7 100260) is another excellent site in the Bighead Valley. Based on size and range of habitats, both these sites rank closely. McGill Lake was selected as a candidate nature reserve over Spey River Headwaters because it illustrates wetland zonation and succession better, is smaller and appears to be in better condition. Both sites should be studied further. This life science systems assessment has shown that very few forested drumlin and wetland complexes are left in Site District 6-5 and the remainder of southern Ontario (Central and Southwestern Regions) as well.

SITE DISTRICT 6-5: BIGHEAD VALLEY-Drumlinized Till Plain, Muck

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	McGill Lake	41A/7	140260

BRIEF DESCRIPTION

The east half of the McGill Lake candidate nature reserve lies within the N.E.P.A. This 480 ha site is the best forested drumlin and wetland complex in Site District 6-5 The crests and slopes of 7 (or more) drumlins are wooded with deciduous and mixed forest. The depression between is filled by McGill Lake which is fringed swamp, shrub thickets and a floating shrub and sedge mat margin. Parts disturbed by logging and forestry roads. One cottage on the east shore of McGill Lake. A rough concession road bissects area.

Lindsay, 1980, Airphoto Interpretation; Significant Natural Areas Along the Niagara Escarpment (1976).

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK, TORONTO M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Spey River Headwaters	41A/7	100260

BRIEF DESCRIPTION This very large,forested drumlin & wetland complex (more than 600 ha in size) surrounds a headwater lake,the source of a tributary of the Spey River. As well, part of the North Spey River traverses the area. A series of 6 or more drumlins are covered with young to intermediate-aged deciduous forest which contains scattered old fieldsStream side wet meadows,swamps & shrub thickets typify the wetlands between drumlins. The lake displays a shrubby mat border. Much of the upland is disturbed by logging and forest access rds. exc.for drumlins which are stranded amongst wetlands.

SOURCES Lindsay,1980,Air Photo Interpretation; Significant Natural Areas Along Niagara Escarpment(1976,p.258).

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK, TORONTO M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	North Spey River Headwaters	41A/10	135 290

BRIEF DESCRIPTION Lying 1 km southeast of Hoath Head, these wetlands form the headwaters of the North Spey River.A combination of shrub thickets and marshes in a flooded swamp forest and unflooded deciduous swamp comprises this ca. 180 ha site. Significant for headwater protection reasons. Contiguous with the McGill Lake candidate nature reserve (41A/7 140260).

SOURCES Significant Natural Areas Along Niagara Escarpment (1976).

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980.

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR WHITNEY BLOCK QUEEN'S PARK, TORONTO M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Dorking North Woodlot	40P/10	190347

BRIEF DESCRIPTION A series of connected woodlots at the back of farms form a forested strip of about 70 ha. This is one of the larger upland forests remaining on the Stratford Till Plain. 2 km north of Dorking. Selectively logged. Should be examined in field and compared with other upland till plain sites selected from a review of recent air photos.

SOURCES

Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 6-5: SAUGEEN CLAY PLAIN - Sandplain

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	East Saugeen NE of Dunkeld	41A/3	845935

BRIEF DESCRIPTION A large forested complex(of approx. 110 ha)along the east bank of the Saugeen River formed of river floodplain and valley slopes 4 km NE of Dunkeld. Cut into sandplain. Contains an extensive forested floodplain(ash - maple-basswood),wetlands along abandoned river channels and oxbows and excellent upland and valley slope forests (maple-ash-hemlock). A summer camp borders the southwest corner of area. A diverse,high quality area. Should be considered part of a larger unit which includes 835930 and 855915.

SOURCES IBP,1971; Lindsay, 1980, Air Photo Interpretation, Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	East Saugeen Oxbows	41A/3	870960

BRIEF DESCRIPTION This river valley section, along the east bank of the Saugeen River is carved into sandplain, 10 km north of Walkerton. Valley rim and slope forests and a broad floodplain with an abandoned river channel characterize this 160 ha area. Floodplain sites support wetland brush, elm-sugar maple-basswood,mixed cedar,wet meadow and some old fields. Deciduous forest covers slopes and uplands. Significant species are reported. A hydro corridor cuts through the north part of the area.

SOURCES Lindsay, 1980, Air Photo Interpretation, South Bruce ESA, 1980.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	East Saugeen ENE of Dunkeld	41A/3	855915

BRIEF DESCRIPTION Partly in Horseshoe Moraines Physiographic Region; north part in Saugeen Clay Plain. This ca. 120 ha site lies on sandplain landforms, 3 km ENE of Dunkeld. Features a good quality, upland forest (maple-ash-hemlock) on east bank of Saugeen River, along a tributary stream. As well, floodplain forest on both sides of the river and upland forest on the west side is represented.

SOURCES IBP, 1971; Lindsay, 1980, Air Photo Interpretation.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980.

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

SITE DISTRICT 6-5: SAUGEEN CLAY PLAIN - Clayplain

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Elderslie Swamp	41A/6	830090

BRIEF DESCRIPTION

Located 5.5 km NE of Paisley. This large swamp complex can be considered representative of the northern, poorly drained part of the Saugeen Clay Plain. Till moraine borders the southwest edge of the area. A tributary of the Saugeen River, Snake Creek, flows along the north edge. About 280 ha in size.

SOURCES Lindsay, 1980. Air Photo Interpretation; South Bruce ESA, 1980; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 6-5: GUELPH DRUMLIN FIELD - Bedrock gorge

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Elora Gorge	40P/9	445355

BRIEF DESCRIPTION Elora Gorge extends along the Grand River, west of Elora for about 2 km. Irvine Creek joins the Grand River at Elora, also flowing through a bedrock gorge. Limestone cliffs more than 20m high line the narrow, deep gorge. Cedar, white birch & white pine vegetate uplands, shrub thickets cover bottomlands. Well known for its rare and uncommon plants. Close to Elora and developed as a Cons. Auth. park. Receives a high level of use. A county road extension is planned which will bridge the gorge. This 95 ha site connects with West Montrose Valley, a spillway feature in Site District 6-1.

SOURCES Lindsay, 1980, Air Photo Interpretation; North Wellington ESA, 1977; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Alton Branch Swamp	40P/16	705545

BRIEF DESCRIPTION

Part of a swampy spillway valley stretching from Orangeville to Hillsburg. About 350 ha in size. A major source area for the Credit River (Alton Branch). This extensive swamp is composed of pure stands of cedar, a black spruce-balsam fir bog, cedar-tamarack-white birch and black spruce lowland,alder thickets and wet meadows. Supports boreal and regionally rare species. Several concession roads cross the area and have affected drainages resulting in local flooding.

SOURCES

Lindsay, 1980, Air Photo Interpretation; Credit River Watershed ESA, 1979; Cuddy, 1976.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Irvine Creek	40P/16	525484

BRIEF DESCRIPTION

Irvine Creek consists of approximately 120 ha of floodplain and slope forest, upland woods and open fields along a spillway valley 2 km west of Belwood. In the northwest portion, a lowland forest on till plain, is actually within the Stratford Till Plain Physiographic Region.

SOURCES

Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

APPENDIX B: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE

1. SITE DISTRICT 6-5: SITES OF BIOLOGICAL SIGNIFICANCE WITH BACKGROUND INFORMATION LISTED BY 1:50,000 N.T.S. MAP SHEET

1:50,000 N.T.S. maps included in Site District 6-5, listed from west to east, north to south.

41A/11 - only sites west of N.E.P.A.[1] have been listed
41A/6
41A/3
40P/14
40P/11
41A/10 - only sites west of N.E.P.A. have been listed
41A/7 - only sites west of N.E.P.A. have been listed
41A/2
40P/15
40P/10 - no known sites with background information
41A/8 - only sites west of N.E.P.A. have been listed
41A/1 - only sites west of N.E.P.A. have been listed
40P/16 - only sites west of N.E.P.A. have been listed
40P/9 - only sites west of N.E.P.A. have been listed

LEGEND TO ABBREVIATIONS

IBP - Site studies as part of International Biological Program.

API - Site identified by airphoto analysis (Environmental Data Card).

EAS - Environmentally snesitive area identified in a report for a regional municipality, county or conservation authority.

1. Credit River Watershed E.S.A., 1979.
2. North Wellington E.S.A., 1977.
3. Southern Bruce County E.S.A., 1980.
4. South Grey County E.S.A., 1978.

SA - Ontario Ministry of Natural Resources Sensitive Areas.

INT - Ontario Ministry of Natural Resources Internal Reports.

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[1] N.E.P.A. = Niagara Escarpment Planning Area

41A/11 WIARTON	UTM GRID REFERENCES	INFORMATION SOURCE
Northwest of Arran Lake	780280	API
Arran Lake North	810275	ESA$_3$,API
Elsinore Bog Complex	813295	API
Chesley Lake South Bog	828307	API
Manchester Lake	845335	API
Skipness Drumlins and Wetlands	850355	API
Allenford Swamp	880310	ESA$_3$
Cashore/Davidson Creek Wetland	935375	API
Wetland-South End Pottawatomi River	945295	API
The Long Swamp	970350	SA,API
41A/6 CHESLEY		
Arran Lake South	785220	ESA$_3$,API
Arran Lake North	820270	ESA$_3$
Elderslie Swamp	830090	ESA$_3$
Chesley Meander Forest	910040	API
41A/3 WALKERTON		
Chepstow Swamp	760850	ESA$_3$
Teeswater Heronry	762726	SA
Teeswater River Area	780730	ESA$_3$
Allens Creek Swamp	810855	ESA$_3$
Dunkeld Oxbow West	835930	ESA$_3$,SA,IBP,API
East Saugeen Oxbows	870960	ESA$_3$
Silver Creek	872852	ESA$_3$
Otter Creek River Valley	900780	API
River Valley - tributary	955825	API
Small bog west of Hanover	965877	API
Habermehl Lake	975955	IBP,API,SA
Carrick Creek	980780	API
Cemetery Road Area	995975	SA
40P/14 WINGHAM		
Turnberry Swamp	705630	SA,API
Culcross Caves	820698	ESA$_3$,SA
Southwest of Wroxeter	860550	API
Bog north of Gorrie	904625	API
Molesworth Esker	915470	API
Huntingfield Agreement Forest	920710	IBP,API,SA
Murrays Bog	935680	SA,API
Lakelet Lake Bog	960675	IBP,API,SA
Small lakes southeast of Lakelet	977642	SA,API
Molesworth Woods	990462	IBP,API,SA
40P/11 SEAFORTH		
Along Maitland River	920390	API
Ethel Swamp and Esker	930425	API,IBP
Esker West of Trowbridge	940410	API
Along Tributary to Maitland River	954380	API

41A/10 OWEN SOUND	UTM GRID REFERENCE	INFORMATION SOURCE
Sydenham River North	050274	API
Spey River Headwaters	135290	API
41A/7 MARKDALE		
Comma or Copps Lake	025005	SA
Louise Lake	035020	SA
North of Louise Lake	035030	SA
Louise Lake Area	035060	API
Desboro East	035165	API
Boyd Lake	037004	SA
Louise Lake	039037	ESA$_4$
South of Louise Lake	040010	API
North of Louise Lake	040035	API
Kinghurst Lake	040075	SA,API
Small lake southwest of Minkes Lake	040127	API
Brotske Lake	050145	API
Wetland at Spey-Sydenham River Junction	050270	API
Brotske, Stewart and Minkes Lakes	059143	ESA$_4$
Kinghurst Forest	060080	API
Stewart and Minkes Lakes	065140	SA,API
Harrison Lake and Bog	080080	API,SA,ESA$_4$
Harrison Lake and Bog	090065	
Southeast of Welbeck	090005	API
Lueck Mill East	090140	API
Welbeck Swamp	103014	ESA$_4$
North Spey River	105265	API
Marsh northwest of McCormick Lake	110020	SA
Negro Lakes	120095	SA,API
Lakes north of Tobermory Lake	130025	SA,API
Williams Lake Woodlot	136166	SA,ESA$_4$
Tobermory Lake	138000	SA,ESA$_4$
Negro Lakes and Swamp	138068	ESA$_4$
McGill Lake	140260	API
Townsend Lake	180050	SA
Walker Lake Area	180105	SA
Robson Lakes West	180185	API
Rocky Saugeen River Valley	186007	ESA$_4$
Hamilton Creek	200170	API
Black's Creek Corner	205045	SA
Robson Lakes	205200	SA,API,INT
Robson Lakes	210190	
Bells Lake	210070	API
Lily Oaks Spring Swamp	220170	API
Louriston Lakes Area	230070	SA
Headwaters of Robson Lakes	235195	API
West of Farden Lake	240025	API
Farden Lake	245025	SA
East of Traverston Creek	260010	API
Headwater Wetland on Saugeen River	270130	API
Beaverdale Fen	290180	API
Temple Hill Swamp	290217	API
Northwest of Flesherton	330045	API

41A/2 DURHAM	UTM GRID REFERENCES	INFORMATION SOURCE
McDonald Lake	044977	ESA$_4$,SA,API
Allan Park Station	063875	ESA$_4$
Small Bog northwest of McLean Lake	078990	API
Beatty Saugeen Swamp	090850	API,IBP,SA
McLean Lake	095980	API,IBP,SA
Camp Creek Lowlands	109874	ESA$_4$
Along Rocky Saugeen River	120960	API
McCormick Lake	120990	SA
Rocky Saugeen River	130970	SA
Orchard Valley Forest	135800	IBP,API,SA
Mud Lake	169760	ESA$_4$,SA
Hayward Falls	175993	API
Black Lake	205895	API
Robb Swamp	248744	ESA$_4$
Saugeen west of Priceville	250965	API
Beaver Meadow	261931	ESA$_4$
Saugeen River	270970	SA
Dromore Woodlands	281839	ESA$_4$
Moss Lake	290933	IBP,API,SA,ESA$_4$
Odell's Woodlot	315920	SA
Gillies Lake and Turner Lake	350940	SA
Gildale Swamp	360790	ESA$_4$,API
Turner Lake Swamp	365925	IBP,API,SA
Proton Station Swamp and Woodlot #1	367926	ESA$_4$
Hopeville Swamp	395840	API,ESA$_4$
Proton Station Swamp and Woodlot #2	395920	ESA$_4$
40P/15 PALMERSTON		
Small Bog South of Highway #87	013593	API
Large Forest northwest of Maitland River	025585	API
Newbridge North	030550	API
Fultons Swamp	040630	ESA$_2$,API
Palmerston Swamp and Hardwoods	070555	ESA$_2$,API
South Saugeen River	105710	ESA$_2$
Drew Swamp and Bog	110685	IBP,API,ESA$_2$
Sugar Maple Woodlot	115485	SA
Pike Lake	155675	IBP,API,ESA$_2$
Mount Forest Bog	175655	API,ESA$_2$
Farewell Swamp and Esker	205640	ESA$_2$
South Saugeen River	240710	API
South Saugeen River	270710	API
Derrynane Forest	340650	API
Eggerton Esker	395710	ESA$_2$,API
Ritch Tract	400470	ESA$_2$,API
41A/8 COLLINGWOOD		
Beaver River at Maxwell	480075	SA
Feversham Gorge	490080	API
Hatherton Wetlands	520000	API
Feversham Southeast Wetland	522088	API

41A/1 DUNDALK	UTM GRID REFERENCE	INFORMATION SOURCE
Proton Station Wetland	400920	API
Keldon Swamp and Esker	470765	IBP,API,SA,ESA_4
Hatherton Wetlands	510990	SA,API
Osprey Swampland	545990	SA
Maple Grove South Wetland	560740	API
Shrigley Swamp	570940	API
Dundalk Swamp	575905	SA
Upper Mad River	595985	SA
Amaranth Swamp	605720	SA
40P/16 ORANGEVILLE		
Wetland west of Monck	420690	API
Forested Drumlin and adjoining Wetland	450625	API
Luther Marsh	450680	API,ESA_2,IBP
Luther Marsh Wildlife Management Area	460650	SA, INT
Wylde Lake Bog	480620	IBP,API
Campania Swamp	570690	API
Amaranth Swamp	610700	SA
Wetland northwest of Reading	620560	API
West of Whittington	645705	API
Mud Lake Area	650600	API,SA
Alton Branch Swamp	710545	ESA_1,API
40P/9 GUELPH		
Elora Gorge	445355	ESA_2
Salem Forest	470410	ESA_2,API

B. Mackay, P. Terpstra
December, 1980

2. SITE DISTRICT 6-5: SITES OF BIOLOGICAL SIGNIFICANCE LISTED BY PHYSIOGRAPHIC REGION (Chapman and Putnam, 1973)

Physiographic Regions within 6-5:

- Dundalk Till Plain
- Horseshoe Moraines
- Teeswater Drumlin Field
- Stratford Till Plain
- Arran Drumlin Field
- Bighead Valley
- Saugeen Clay Plain
- Hillsburg Sand Hills
- Guelph Drumlin Field
- Waterloo Hills - no known sites with background information

DUNDALK TILL PLAIN

40P/11 SEAFORTH	UTM GRID REFERENCES	INFORMATION SOURCE
Along Maitland River	920390	API
Ethel Swamp and Esker	930425	IBP,API
Esker west of Trowbridge	940410	API
Along Tributary to Maitland River	954380	API
41A/2 DURHAM		
Gildale Swamp	360790	ESA$_4$,API
Hopeville Swamp	395840	ESA$_4$,API
Proton Station Swamp and Woodlot #2	395920	ESA$_4$
40P/15 PALMERSTON		
Sugar Maple Woodlot	115485	SA
Farewell Swamp and Esker	205640	ESA$_2$
South Saugeen River	240710	API
South Saugeen River	270715	API
Derrynane Forest	340650	API
Eggerton Esker	395710	ESA$_2$,API
41A/8 COLLINGWOOD		
Hatherton Wetland	520000	API
41A/1 DUNDALK		
Proton Station Wetland	400920	API
Keldon Swamp and Esker	470765	IBP,API,SA,ESA$_4$
Hatherton Wetlands	510990	SA
Osprey Swampland	545990	SA
Maple Grove South Wetland	560740	API
Shrigley Swamp	570940	API
Dundalk Swamp	575905	SA
Upper Mud River	595985	SA
Amaranth Swamp	605720	SA

40P/16 ORANGEVILLE	UTM GRID REFERENCES	INFORMATION SOURCE
Wetland west of Monck	420690	API
Forested Drumlin and adjoining Wetland	450625	API
Luther Marsh	450680	ESA$_2$,API,IBP
Luther Marsh Wildlife Management Area	460650	SA,INT
Wylde Lake Bog	480620	IBP,API
Campania Swamp	570690	API
Amaranth Swamp	610700	SA
Wetland northwest of Reading	620560	API
West of Whittington	645705	API
Mud Lake Area	650600	API,SA

HORSESHOE MORAINES

41A/3 WALKERTON

Chepstow Swamp	760850	ESA$_3$
Teeswater Heronry	762726	SA
Teeswater River Area	780730	ESA$_3$
Allens Creek Swamp	810855	ESA$_3$
Dunkeld Oxbow West	835930	IBP,ESA$_3$,SA,API
East Saugeen Oxbows	870960	ESA$_3$
Silver Creek	872852	ESA$_3$
River Valley - tributary	955825	API
Small bog west of Hanover	965877	API
Habemehl Lake	975955	IBP,SA,API
Carrick Creek	980780	API
Cemetery Road Area	995975	SA

41A/7 MARKDALE

Comma or Copps Lake	025005	SA
Louise Lake	035020	SA
North of Louise Lake	035030	SA
Louise Lake Area	035060	API
Desboro East	035165	API
Boyd Lake	037004	SA
Louise Lake	039037	ESA$_4$
South of Louise Lake	040010	API
North of Louise Lake	040035	API
Kinghurst Lake	040075	SA,API
Small Lake southwest of Minkes Lake	040127	API
Brotske Lake	050145	API
Wetland at Spey-Sydenham River Junction	050270	API
Brotske, Stewart and Minkes Lake	059143	ESA$_4$
Kinghurst Forest	060080	API
Stewart and Minkes Lakes	065140	SA,API
Harrison Lake and Bog	080080	
	090065	ESA$_4$,SA,API
Southeast of Welbeck	090005	API
Lueck Mill East	090140	API
Welbeck Swamp	103014	ESA$_4$
Marsh northwest of McCormick Lake	110020	SA
Negro Lakes	120095	SA, API

	UTM GRID REFERENCES	INFORMATION SOURCE
Lakes north of Tobermory Lake	130025	SA,API
Williams Lake Woodlot	136166	ESA$_4$,SA
Tobermory Lake	138000	ESA$_4$,SA
Negro Lakes and Swamp	138068	ESA$_4$
Townsend Lake	180050	SA
Walker Lake Area	180105	SA
Robson Lakes West	180185	API
Rocky Saugeen River Valley	186007	ESA$_4$
Hamilton Creek	200170	API
Black's Creek Corner	205045	SA
Robson Lakes	205200	
Robson Lakes	210190	INT,SA,API
Bells Lake	210070	API
Lily Oaks Spring Swamp	220175	API
Louriston Lakes Area	230070	SA
Headwaters of Robson Lakes	235195	API
West of Farden Lake	240025	API
Farden Lake	245025	SA
East of Traverston Creek	260010	API
Headwater Wetland on Saugeen River	270130	API
Beaverdale Fen	290180	API
Temple Hill Swamp	290217	API
Northwest of Flesherton	330045	API
41A/2 DURHAM		
McDonald Lake	044977	ESA$_4$,SA,API
Allan Park Station	063875	ESA$_4$
Small Bog northwest of McLean Lake	078990	API
Beatty Saugeen Swamp	090850	IBP,SA,API
McLean Lake	095980	IBP,SA,API
Camp Creek Lowlands	109874	ESA$_4$
Along Rocky Saugeen River	120960	API
McCormick Lake	120990	SA
Rocky Saugeen River	130970	SA
Orchard Valley Forest	135800	IBP,SA,API
Mud Lake	169760	ESA$_4$,SA
Hayward Falls	175993	API
Black Lake	205895	API
Robb Swamp	248744	ESA$_4$
Saugeen west of Priceville	250965	API
Beaver Meadow	261931	ESA$_4$
Saugeen River	270960	SA
Dromore Woodlands	281839	ESA$_4$
Moss Lake	290933	IBP,ESA$_4$,SA,API
Odell's Woodlot	315920	SA
Gillies Lake and Turner Lake	350940	SA
Turner Lake Swamp	365925	IBP,SA,API
Proton Station Swamp and Woodlot #1	367926	ESA$_4$
40P/15 PALMERSTON		
Pike Lake	155675	IBP,ESA$_2$,API
Mount Forest Bog	175655	ESA$_2$,API
South Saugeen River	240710	
South Saugeen River	270715	API

41A/8 COLLINGWOOD	UTM GRID REFERENCES	INFORMATION SOURCE
Beaver River at Maxwell	480075	SA
Feversham Gorge	490080	API
Feversham Southeast Wetlands	522088	API

TEESWATER DRUMLIN FIELD

41A/3 WALKERTON

Otter Creek River Valley	900780	API

40P/14 WINGHAM

Turnberry Swamp	705630	SA,API
Culcross Caves	820698	ESA$_3$,SA
Southwest of Wroxeter	860550	API
Bog north of Gorrie	904625	API
Molesworth Esker	915470	API
Huntingfield Agreement Forest	920710	IBP,SA,API
Murray's Bog	935680	SA,API
Lakelet Lake Bog	960675	IBP,SA,API
Small Lakes southeast of Lakelet	977642	SA,API
Molesworth Woods	990462	IBP,SA, API

40P/15 PALMERSTON

Small Bog south of Highway #87	013595	API
Forest northwest of Maitland River	025585	API
Newbridge North	030550	API
Fultons Swamp	040630	ESA$_2$,API
Palmerston Swamp and Hardwoods	070555	ESA$_2$,API
South Saugeen River	105710	ESA$_2$
Drew Swamp and Bog	110685	IBP,ESA$_2$,API

STRATFORD TILL PLAIN

40P/15 PALMERSTON

Ritch Tract	400470	ESA$_2$,API

ARRAN DRUMLIN FIELD

41A/11 WIARTON

Northwest of Arran Lake	780280	API
Arran Lake North	810275	ESA$_3$,API
Elsinore Bog Complex	813295	API
Chesley Lake South Bog	828307	API
Manchester Lake	845335	API
Skipness Drumlins and Wetlands	850355	API
Allenford Swamp	880310	ESA$_3$
Cashore/Davidson Creek Wetland	935375	API
Wetland-South End Pottawatomi River	945295	API
The Long Swamp	970350	SA,API

41A/6 CHESLEY

Arran Lake South	785220	ESA$_3$,API
Arran Lake North	820270	ESA$_3$

BIGHEAD VALLEY

41A/10 OWEN SOUND

Wetland at Spey-Sydenham River Junction	050270	API
Sydenham River North	050274	API
Spey River Headwaters	135290	API

41A/7 MARKDALE

North Spey River	105265	API
McGill Lake	140260	API

SAUGEEN CLAY PLAIN

41A/6 CHESLEY

Elderslie Swamp	830090	ESA$_3$,API
Chesley Meander Forest	810040	API

41A/3 WALKERTON

East Saugeen Oxbows	870960	ESA$_3$

HILLSBURGH SAND HILLS

40P/16 ORANGEVILLE

Alton Branch Swamp	710545	ESA$_1$,API

GUELPH DRUMLIN FIELD

40P/9 GUELPH

Elora Gorge	445355	ESA
Salem Forest	470410	ESA$_2$,API

B. Mackay, P. Terpstra
December, 1980

APPENDIX C: SITES SELECTED FROM AN AIRPHOTO REVIEW TO REPRESENT UPLAND SITES ON DUNDALK TILL PLAIN

The following cards identify sites selected from a review of 1978 airphotos (for 40P/15 and 40P/10) which could represent remnant upland forests on till plain. However, further field work and analysis is required before a site(s) can be chosen to represent this feature. Because of time constraints, the 1978 airphotos for 40P/11, 40P/16, 41A/1, 41A/2 and 41A/8 were not reviewed but could be to search for additional remnant upland sites.

SITE DISTRICT 6-5: DUNDALK TILL PLAIN-DRUMLINIZED TILL PLAIN, SPILLWAY.

Sites selected from 1978 air photo review but requiring field checking.

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Palmerston South Upland Forest	40P/15	115485

BRIEF DESCRIPTION Situated on till plain, 2 km south of Palmerston, this ca. 130 ha. area includes:upland forest, stream habitats along a tributary of the Little Maitland River, and wetter lowland forest east of concession road. Altered by selective logging and grazing. Divided into 2 parts by road. A gravel pit is located on the north side.

SOURCES Sensitive Areas Report, 1976, MNR; Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Wallace NE Upland Forest	40P/15	125457

BRIEF DESCRIPTION An approximately 60 ha upland forest. Situated on till plain, 1 km northeast of Wallace. Selected from air photo analysis as a potential site to represent upland forest on till plain.

SOURCES
Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Riverbank West	40P/15	270520

BRIEF DESCRIPTION An approximately 100 ha woodlot belt along the back of farm lots. On till plain. Relatively undisturbed. Selected from air photo analysis as a potential site to represent upland forest on till plain. Two concession roads cross through the area.

SOURCES
Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

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3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 6-5: DUNDALK TILL PLAIN - DRUMLINIZED TILL PLAIN, SPILLWAY (cont'd)

Sites selected from 1978 air photo review but requiring field checking.

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	North of Conestogo Lake	40P/10	200405

BRIEF DESCRIPTION

A wide strip of relatively undisturbed, upland woodlots, at back of farms. On till plain. About 130 ha in extent. Selectively logged. A potential site to represent upland forest on till plain.

SOURCES

Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Spring Creek Forest	40P/10	130415

BRIEF DESCRIPTION

A 60 ha woodlot on till plain. Situated along Spring Creek, 3 km west of the north end of Conestogo Lake. Selectively logged. Spring Creek has been channelized. A potential site to represent upland forest on till plain.

SOURCES

Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay,1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Listowel SW Forest	40P10	010375

BRIEF DESCRIPTION

A small, relatively undisturbed woodlot on till plain, about 5 km southwest of Listowel. About 40 ha in extent. A potential site to represent upland forest on till plain.

SOURCES

Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO. M7A 1W3

1981

SITE DISTRICT 6-5: DUNDALK TILL PLAIN-DRUMLINIZED TILL PLAIN, SPILLWAY (Cont'd)

Sites selected from 1978 air photo review but requiring field checking

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Wagram Southeast	40P15	245560

BRIEF DESCRIPTION

An approximately 150 ha area on spillway deposits and till plain. Two branches of a tributary to the Conestoga River pass through the area. One rises here. The forest has been selectively cut. A trailer park adjoins the east side.

SOURCES

Lindsay, 1980, Air Photo Interpretation; North Wellington ESA, 1977, p.24

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Conn Southwest	40P15	333688

BRIEF DESCRIPTION

A small site (ca. 30 ha in extent), 3 km sw of Conn. On spillway and till plain deposits. Contains an upland woods between two branches of a tributary to the South Saugeen River, and lowland forest along its course. To the south, the stream is flooded, possibly by beaver.

SOURCES

Lindsay, 1980, Air Photo Interpretation

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
			Lindsay, 1980

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

APPENDIX D: POLICY FOR AREAS OF NATURAL AND SCIENTIFIC INTEREST

Areas of Natural and Scientific Interest (ANSI) are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage appreciation, scientific study or education.

ANSI s may vary in level of significance. The most significant of these may contribute to the achievement of the Ministry's protection objective.

Where ANSI s occur on public lands managed by the Ministry, it will ensure that the land uses and activities which occur, provide for the protection of identified values.

On private lands, the Ministry will, through co-operation with others, attempt to ensure that landowners are aware of significant features on their properties and seek the owners' cooperation in protecting such features. The identification of areas of natural and scientific interest on private land does not indicate an intent of the Ministry to acquire this land.

ANSI s encourage the protection of additional areas not regulated as provincial parks and provide a focus for both the public and private sectors to contribute to the protection of Ontario's natural heritage.

SOURCE: Ontario Ministry of Natural Resources, 1983. Backgrounder: Land Use Guidelines. Southwestern Region.

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